

## **LLNL Livermore Site Second Quarter 2013 Self-Monitoring Report**

This quarterly report presents the second quarter 2013 self-monitoring data for the ground water and soil vapor treatment facilities at the Lawrence Livermore National Laboratory (LLNL) Livermore Site. The volumes of ground water and soil vapor treated, and volatile organic compound (VOC) mass removed during the second quarter of 2013 are presented in Tables 1 and 2, respectively. An historical summary of VOC volume and mass removed are presented in Tables 3 and 4, respectively.

Attachment A presents results of ground water treatment facility and extraction well (ground water and soil vapor) VOC, and chromium analyses (Tables A-1 through A-4). During the second quarter of 2013, all effluent sample analytical results were within acceptable discharge limits.

Self-monitoring reports for all treatment facilities are presented in Attachment B. Monthly volumes of ground water extracted are shown in Attachment B; however, instantaneous flow rates are not shown for wells that are now only used for sampling and are not continuously pumped. The monthly volume shown for these wells is the quantity of water evacuated for sampling purposes.

A map showing Livermore Site treatment areas and treatment facility locations, and ground water elevation contour maps showing hydraulic capture zones for hydrostratigraphic units (HSUs) 1B, 2, 3A, 3B, 4, and 5, are presented in Attachment C. The contour maps for the individual HSUs are based on data collected during the second quarter of 2013.

This work performed under the auspices of the U.S. Department of Energy/National Nuclear Security Administration by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344.

**Table 1. Volumes of ground water and soil vapor extracted and treated at the Livermore Site, April through June 2013.**

<b>Treatment Area<sup>a</sup></b>	<b>Month</b>	<b>Volume of ground water extracted (Kgal)<sup>b</sup></b>	<b>Volume of vapor extracted (Kcf)<sup>b</sup></b>
<b>TFA</b>	<b>April</b>	<b>8,240</b>	<b>-</b>
	<b>May</b>	<b>10,576</b>	<b>-</b>
	<b>June</b>	<b>8,021</b>	<b>-</b>
<b>TFB</b>	<b>April</b>	<b>2,498</b>	<b>-</b>
	<b>May</b>	<b>2,784</b>	<b>-</b>
	<b>June</b>	<b>2,373</b>	<b>-</b>
<b>TFC</b>	<b>April</b>	<b>4,005</b>	<b>-</b>
	<b>May</b>	<b>3,838</b>	<b>-</b>
	<b>June</b>	<b>3,205</b>	<b>-</b>
<b>TFD</b>	<b>April</b>	<b>7,031</b>	<b>2,094</b>
	<b>May</b>	<b>6,505</b>	<b>1,356</b>
	<b>June</b>	<b>5,955</b>	<b>1,114</b>
<b>TFE</b>	<b>April</b>	<b>2,576</b>	<b>2,023</b>
	<b>May</b>	<b>2,490</b>	<b>1,848</b>
	<b>June</b>	<b>2,122</b>	<b>1,762</b>
<b>TFG</b>	<b>April</b>	<b>512</b>	<b>-</b>
	<b>May</b>	<b>485</b>	<b>-</b>
	<b>June</b>	<b>471</b>	<b>-</b>
<b>TFH</b>	<b>April</b>	<b>660</b>	<b>2,104</b>
	<b>May</b>	<b>735</b>	<b>1,876</b>
	<b>June</b>	<b>657</b>	<b>1,991</b>
<b>TOTAL<sup>c</sup></b>		<b>75,739</b>	<b>16,168</b>

<sup>a</sup> Totals include ground water and soil vapor extracted from the following facilities:

TFA area: TFA, TFA-E

TFB area: TFB

TFC area: TFC, TFC-E, TFC-SE

TFD area: TFD, TFD-E, TFD-HPD, TFD-S, TFD-SE, TFD-SS, TFD-W, VTFD-ETCS, VTFD-HS

TFE area: TFE-E, TFE-HS, TFE-NW, TFE-SE, TFE-SW, TFE-W, VTFE-ELM, VTFE-HS

TFG area: TFG-1, TFG-N

TFH area: TF406, TF406-NW, TF518-N, TF518-PZ, TF5475-1, TF5475-2, TF5475-3, VTF406-HS, VTF511, VTF518-PZ, VTF5475

TFF started operation in February 1993 for fuel hydrocarbon remediation. In August 1995, the regulatory agencies agreed that the vadose zone remediation was complete, and in October 1996 a No Further Action status was granted for the ground water.

<sup>b</sup> Totals are derived from individual extraction wells shown in Attachment B.

<sup>c</sup> Rounded number.

Kcf = Thousands of cubic feet.

Kgal = Thousands of gallons.

**Table 2. VOC mass removed at the Livermore Site, April through June 2013.**

<b>Treatment Area<sup>a</sup></b>	<b>VOC mass removed from ground water (kg)</b>	<b>VOC mass removed from soil vapor (kg)</b>	<b>Total VOC mass removed (kg) <sup>b</sup></b>
<b>TFA</b>	<b>1.0</b>	<b>-</b>	<b>1.0</b>
<b>TFB</b>	<b>0.6</b>	<b>-</b>	<b>0.6</b>
<b>TFC</b>	<b>1.2</b>	<b>-</b>	<b>1.2</b>
<b>TFD</b>	<b>6.3</b>	<b>0.8</b>	<b>7.1</b>
<b>TFE</b>	<b>1.9</b>	<b>1.1</b>	<b>3.0</b>
<b>TFG</b>	<b>0.1</b>	<b>-</b>	<b>0.1</b>
<b>TFH</b>	<b>0.2</b>	<b>4.3</b>	<b>4.5</b>
<b>TOTAL<sup>b</sup></b>	<b>11.3</b>	<b>6.2</b>	<b>17.5</b>

**Table 3. Historical summary of volumes of water and soil vapor removed at the Livermore Site through June 2013.**

<b>Treatment Area<sup>a</sup></b>	<b>Volume of ground water extracted (Mgal)</b>	<b>Volume of vapor extracted (Mcf)</b>
<b>TFA</b>	<b>2,014</b>	<b>-</b>
<b>TFB</b>	<b>480</b>	<b>-</b>
<b>TFC</b>	<b>544</b>	<b>-</b>
<b>TFD</b>	<b>1,115</b>	<b>118</b>
<b>TFE</b>	<b>402</b>	<b>188</b>
<b>TFG</b>	<b>90</b>	<b>-</b>
<b>TFH</b>	<b>176</b>	<b>266</b>
<b>TOTAL<sup>b</sup></b>	<b>4,821</b>	<b>572</b>

**Table 4. Historical summary of VOC mass removed from water and soil vapor at the Livermore Site through June 2013.**

<b>Treatment Area<sup>a</sup></b>	<b>VOC mass removed from ground water (kg)</b>	<b>VOC mass removed from soil vapor (kg)</b>	<b>Total VOC mass removed (kg) <sup>b</sup></b>
<b>TFA</b>	<b>213</b>	<b>-</b>	<b>213</b>
<b>TFB</b>	<b>83</b>	<b>-</b>	<b>83</b>
<b>TFC</b>	<b>110</b>	<b>-</b>	<b>110</b>
<b>TFD</b>	<b>877</b>	<b>97</b>	<b>974</b>
<b>TFE</b>	<b>229</b>	<b>155</b>	<b>384</b>
<b>TFG</b>	<b>12</b>	<b>-</b>	<b>12</b>
<b>TFH</b>	<b>41</b>	<b>1,266</b>	<b>1,307</b>
<b>TOTAL<sup>b</sup></b>	<b>1,565</b>	<b>1,518</b>	<b>3,083</b>

<sup>a</sup> Refer to Table 1 footnote for facilities in each treatment facility area.<sup>b</sup> Rounded number.

Abbreviations for Tables 2, 3 and 4:

kg = Kilograms.

Mcf = Millions of cubic feet.

Mgal = Millions of gallons.

VOC = Volatile organic compound.

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**Attachment A**

**VOC and Chromium**

**Analyses**

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Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFA</b>													
TFA-I001	03-APR-13	E601	<0.5	<b>0.86</b>	<b>0.69</b>	<0.5	<b>1.1</b>	<1	<0.5	<b>6.3</b>	<0.5	<b>0.63</b>	<0.5
TFA-I001	01-MAY-13	E601	<0.5	<b>1</b>	<b>0.84</b>	<0.5	<b>1.3</b>	<1	<0.5	<b>6.1</b>	<0.5	<b>0.68</b>	<0.5
TFA-I001	03-JUN-13	E601	<0.5	<b>0.98</b>	<b>0.81</b>	<0.5	<b>1.4</b>	<1	<0.5	<b>6.2</b>	<0.5	<b>0.64</b>	<0.5
<b>TFA-E<sup>a</sup></b>													
W-254	29-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<b>20</b>	<0.5	<b>0.5</b>	<0.5
<b>TFB</b>													
TFB-I002	03-APR-13	E601	<b>0.62</b>	<b>2.5</b>	<0.5	<0.5	<b>1.5</b>	<1	<b>3.4</b>	<b>1.5</b>	<0.5	<b>14</b>	<0.5
TFB-I002	01-MAY-13	E601	<0.5	<b>1.5</b>	<0.5	<0.5	<b>0.98</b>	<1	<b>2.7</b>	<b>0.9</b>	<0.5	<b>11</b>	<0.5
TFB-I002	03-JUN-13	E601	<b>0.54</b>	<b>2.4</b>	<0.5	<0.5	<b>1.4</b>	<1	<b>2.9</b>	<b>0.99</b>	<0.5	<b>10</b>	<0.5
<b>TFB-E<sup>a</sup></b>													
TFB-E002	03-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFB-E002	01-MAY-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFB-E002	03-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFC</b>													
TFC-I003	03-APR-13	E601	<0.5	<b>0.93</b>	<0.5	<0.5	<b>0.67</b>	<1	<b>9.7</b>	<b>3.2</b>	<0.5	<b>9.9</b>	<0.5
TFC-I003	01-MAY-13	E601	<0.5	<b>1.1</b>	<0.5	<0.5	<b>0.82</b>	<1	<b>11</b>	<b>3.4</b>	<0.5	<b>11</b>	<0.5
TFC-I003	03-JUN-13	E601	<0.5	<b>1</b>	<0.5	<0.5	<b>0.83</b>	<1	<b>10</b>	<b>3.4</b>	<0.5	<b>11</b>	<0.5
<b>TFC-E<sup>a</sup></b>													
MTU1-I	03-APR-13	E601	<0.5	<b>11</b>	<0.5	<0.5	<b>0.72</b>	<1	<b>10</b>	<b>0.5</b>	<0.5	<b>6.5</b>	<b>3.6</b>
MTU1-I	01-MAY-13	E601	<0.5	<b>14</b>	<0.5	<0.5	<b>0.9</b>	<1	<b>10</b>	<0.5	<0.5	<b>8</b>	<b>3.9</b>
MTU1-I	05-JUN-13	E601	<0.5	<b>15</b>	<0.5	<0.5	<b>0.93</b>	<1	<b>11</b>	<0.5	<0.5	<b>8.3</b>	<b>4.3</b>
<b>MTU1-E<sup>a</sup></b>													
MTU1-E	03-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU1-E	01-MAY-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU1-E	05-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET ->	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFC-SE</b>													
PTU1-I	04-APR-13	E601	<0.5	<b>7</b>	<0.5	<0.5	<b>1.7</b>	<1	<b>14</b>	<b>0.61</b>	<0.5	<b>13</b>	<b>0.97</b>
PTU1-I	02-MAY-13	E601	<0.5	<b>7.9</b>	<0.5	<0.5	<b>2</b>	<1	<b>15</b>	<b>0.61</b>	<0.5	<b>14</b>	<b>1</b>
PTU1-I	04-JUN-13	E601	<0.5	<b>7.9</b>	<0.5	<0.5	<b>2</b>	<1	<b>15</b>	<b>0.62</b>	<0.5	<b>14</b>	<b>1</b>
PTU1-E	04-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU1-E	02-MAY-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU1-E	04-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFD</b>													
TFD-I004	04-APR-13	E601	<b>2</b>	<b>2.9</b>	<0.5	<0.5	<b>1</b>	<1	<b>0.68</b>	<b>1.9</b>	<0.5	<b>54</b>	<b>15</b>
TFD-I004	02-MAY-13	E601	<b>2.1</b>	<b>3.3</b>	<0.5	<0.5	<b>1.2</b>	<1	<b>0.78</b>	<b>1.8</b>	<0.5	<b>60</b>	<b>15</b>
TFD-I004	04-JUN-13	E601	<b>2.2</b>	<b>3.3</b>	<0.5	<0.5	<b>1.2</b>	<1	<b>0.76</b>	<b>1.9</b>	<0.5	<b>58</b>	<b>15</b>
TFD-E004	04-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-E004	02-MAY-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-E004	04-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFD-E</b>													
PTU8-I	03-APR-13	E601	<b>3.5</b>	<b>1.5</b>	<0.5	<b>1</b>	<b>4.5</b>	<1	<0.5	<b>4.4</b>	<0.5	<b>89</b>	<b>0.77</b>
PTU8-I	01-MAY-13	E601	<b>3.7</b>	<b>1.6</b>	<0.5	<b>1</b>	<b>5.1</b>	<1	<0.5	<b>4.3</b>	<0.5	<b>93</b>	<b>0.81</b>
PTU8-I	05-JUN-13	E601	<b>3.6</b>	<b>1.6</b>	<0.5	<b>1</b>	<b>5.1</b>	<1	<0.5	<b>4</b>	<0.5	<b>92</b>	<b>0.79</b>
PTU8-E	03-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU8-E	01-MAY-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU8-E	05-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFD-HPD</b>													
PTU10-I	10-APR-13	E601	<b>1.4</b>	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>33</b>	<0.5
PTU10-I	08-MAY-13	E601	<b>1.5</b>	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>36</b>	<0.5
PTU10-I	06-JUN-13	E601	<b>1.4</b>	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>33</b>	<0.5
PTU10-E	10-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU10-E	08-MAY-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU10-E	06-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFD-S</b>													
PTU2-I	11-APR-13	E601	<b>0.75</b>	<b>1.6</b>	<0.5	<0.5	<b>4</b>	<1	<b>1.2</b>	<b>6</b>	<0.5	<b>50</b>	<0.5
PTU2-I	08-MAY-13	E601	<b>0.8</b>	<b>1.7</b>	<0.5	<0.5	<b>4.9</b>	<1	<b>1.3</b>	<b>6.2</b>	<0.5	<b>55</b>	<0.5
PTU2-I	05-JUN-13	E601	<b>0.82</b>	<b>1.7</b>	<0.5	<0.5	<b>4.8</b>	<1	<b>1.3</b>	<b>6.1</b>	<0.5	<b>56</b>	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFD-S (cont.)</b>													
PTU2-E	11-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU2-E	08-MAY-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU2-E	05-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFD-SE</b>													
PTU11-I	03-APR-13	E601	<b>0.59</b>	<b>4.3</b>	<b>0.61</b>	<b>1.2</b>	<b>8.4</b>	<1	<b>1.6</b>	<b>26</b>	<0.5	<b>95</b>	<0.5
PTU11-I	01-MAY-13	E601	<b>0.67</b>	<b>4.9</b>	<b>0.76</b>	<b>1.4</b>	<b>10</b>	<1	<b>1.8</b>	<b>27</b>	<0.5	<b>100</b>	<0.5
PTU11-I	05-JUN-13	E601	<b>0.62</b>	<b>4.4</b>	<b>0.69</b>	<b>1.4</b>	<b>10</b>	<1	<b>1.5</b>	<b>26</b>	<0.5	<b>100</b>	<0.5
PTU11-E	03-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU11-E	01-MAY-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU11-E	05-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFD-SS</b>													
PTU12-I	11-APR-13	E601	<b>1.6</b>	<b>2.1</b>	<b>0.58</b>	<b>1.9</b>	<b>9.7</b>	<1	<b>0.51</b>	<b>18</b>	<0.5	<b>100</b>	<b>5.4</b>
PTU12-I	08-MAY-13	E601	<b>1.7</b>	<b>2.3</b>	<b>0.66</b>	<b>2.2</b>	<b>11</b>	<1	<b>0.56</b>	<b>19</b>	<0.5	<b>110</b>	<b>5.7</b>
PTU12-I	05-JUN-13	E601	<b>1.8</b>	<b>2.4</b>	<b>0.66</b>	<b>2.2</b>	<b>12</b>	<1	<b>0.6</b>	<b>18</b>	<0.5	<b>120</b>	<b>5.1</b>
PTU12-E	11-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU12-E	08-MAY-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU12-E	05-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFD-W</b>													
PTU6-I	10-APR-13	E601	<0.5	<b>5</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>4.3</b>	<b>41</b>
PTU6-I	08-MAY-13	E601	<0.5	<b>5.4</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>4.5</b>	<b>43</b>
PTU6-I	06-JUN-13	E601	<0.5	<b>5.3</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>4.5</b>	<b>42</b>
PTU6-E	10-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU6-E	08-MAY-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU6-E	06-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFE-E</b>													
PTU3-I	02-APR-13	E601	<0.5	<b>2</b>	<0.5	<0.5	<b>7.1</b>	<1	<b>6.8</b>	<b>7.3</b>	<0.5	<b>49</b>	<0.5
PTU3-I	01-MAY-13	E601	<0.5	<b>2.3</b>	<0.5	<0.5	<b>8.3</b>	<1	<b>7.5</b>	<b>7.2</b>	<0.5	<b>53</b>	<0.5
PTU3-I	04-JUN-13	E601	<0.5	<b>2.3</b>	<0.5	<0.5	<b>7.5</b>	<1	<b>7.2</b>	<b>6.3</b>	<0.5	<b>50</b>	<0.5
PTU3-E	02-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU3-E	01-MAY-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU3-E	04-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFE-HS</b>													
W-2105	04-APR-13	E601	<0.5	<b>0.93</b>	<0.5	<0.5	<b>2.2</b>	<b>3.6</b>	<b>3.8</b>	<b>16</b>	<0.5	<b>260</b>	<0.5
GTU07-I	04-APR-13	E601	<0.5	<b>0.97</b>	<0.5	<0.5	<b>2.4</b>	<b>3.4</b>	<b>3.9</b>	<b>15</b>	<0.5	<b>260</b>	<0.5
GTU07-I	09-MAY-13	E601	<0.5	<b>0.99</b>	<0.5	<0.5	<b>2.6</b>	<b>3.8</b>	<b>4.1</b>	<b>15</b>	<0.5	<b>250</b>	<0.5
GTU07-I	05-JUN-13	E601	<0.5	<b>1</b>	<0.5	<0.5	<b>2.5</b>	<b>4.2</b>	<b>4.2</b>	<b>15</b>	<0.5	<b>260</b>	<0.5
GTU07-E	04-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU07-E	09-MAY-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU07-E	05-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFE-NW</b>													
PTU9-I	10-APR-13	E601	<0.5	<b>1.2</b>	<0.5	<0.5	<0.5	<1	<b>1.2</b>	<0.5	<0.5	<b>11</b>	<0.5
PTU9-I	07-MAY-13	E601	<0.5	<b>1.3</b>	<0.5	<0.5	<0.5	<1	<b>1.3</b>	<0.5	<0.5	<b>11</b>	<0.5
PTU9-I	04-JUN-13	E601	<0.5	<b>1.3</b>	<0.5	<0.5	<0.5	<1	<b>1.2</b>	<0.5	<0.5	<b>12</b>	<0.5
PTU9-E	10-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU9-E	07-MAY-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU9-E	04-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFE-SE</b>													
W-359	02-APR-13	E601	<b>3.1</b>	<b>1.3</b>	<0.5	<0.5	<b>15</b>	<1	<b>5.5</b>	<b>7.9</b>	<0.5	<b>200</b>	<b>0.78</b>
MTU04-I	01-MAY-13	E601	<b>3.4</b>	<b>1.5</b>	<0.5	<0.5	<b>17</b>	<1	<b>6.4</b>	<b>7.8</b>	<0.5	<b>190</b>	<b>0.83</b>
MTU04-I	04-JUN-13	E601	<b>3.2</b>	<b>1.4</b>	<0.5	<0.5	<b>17</b>	<1	<b>6.5</b>	<b>7.7</b>	<0.5	<b>200</b>	<b>0.72</b>
MTU04-E	02-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU04-E	01-MAY-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU04-E	04-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFE-SW</b>													
MTU03-I	09-APR-13	E601	<b>0.97</b>	<b>1.4</b>	<0.5	<0.5	<b>0.66</b>	<1	<b>0.91</b>	<b>1.2</b>	<0.5	<b>25</b>	<0.5
MTU03-I	08-MAY-13	E601	<b>1</b>	<b>1.5</b>	<0.5	<0.5	<b>0.67</b>	<1	<b>0.99</b>	<b>1.1</b>	<0.5	<b>25</b>	<0.5
MTU03-I	06-JUN-13	E601	<b>1.3</b>	<b>1.7</b>	<0.5	<0.5	<b>0.76</b>	<1	<b>0.94</b>	<b>1.4</b>	<0.5	<b>33</b>	<0.5
MTU03-E	09-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU03-E	08-MAY-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU03-E	06-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFE-W</b>													
MTU05-I	09-APR-13	E601	<0.5	<b>0.99</b>	<0.5	<0.5	<b>1.8</b>	<1	<b>12</b>	<b>6.4</b>	<0.5	<b>27</b>	<0.5
MTU05-I	08-MAY-13	E601	<0.5	<b>1.1</b>	<0.5	<0.5	<b>2</b>	<1	<b>13</b>	<b>6.2</b>	<0.5	<b>29</b>	<b>0.52</b>

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFE-W (cont.)</b>													
MTU05-I	06-JUN-13	E601	<0.5	<b>1.1</b>	<0.5	<0.5	<b>2</b>	<b>1</b>	<b>13</b>	<b>6.6</b>	<0.5	<b>30</b>	<b>0.52</b>
MTU05-E	09-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU05-E	08-MAY-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU05-E	06-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFG-1</b>													
W-1111	10-APR-13	E601	<b>2.4</b>	<b>11</b>	<0.5	<0.5	<b>0.82</b>	<1	<0.5	<b>1</b>	<0.5	<b>3.6</b>	<0.5
GTU01-I	02-MAY-13	E601	<b>2.8</b>	<b>12</b>	<0.5	<0.5	<b>0.98</b>	<1	<b>0.51</b>	<b>0.94</b>	<0.5	<b>3.9</b>	<0.5
GTU01-I	04-JUN-13	E601	<b>2.8</b>	<b>11</b>	<0.5	<0.5	<b>0.97</b>	<1	<b>0.55</b>	<b>0.98</b>	<0.5	<b>4</b>	<0.5
GTU01-E	10-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU01-E	02-MAY-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU01-E	04-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFG-N</b>													
MTU02-I	10-APR-13	E601	<0.5	<b>1.4</b>	<0.5	<0.5	<b>1.3</b>	<1	<b>1.1</b>	<b>15</b>	<0.5	<b>4.8</b>	<0.5
MTU02-I	02-MAY-13	E601	<0.5	<b>1.6</b>	<0.5	<0.5	<b>1.5</b>	<1	<b>1.3</b>	<b>15</b>	<0.5	<b>5.3</b>	<0.5
MTU02-I	04-JUN-13	E601	<0.5	<b>1.4</b>	<0.5	<0.5	<b>1.4</b>	<1	<b>1.1</b>	<b>15</b>	<0.5	<b>5.2</b>	<0.5
MTU02-E	10-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU02-E	02-MAY-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU02-E	04-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TF406</b>													
PTU5-I	09-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>3.4</b>	<0.5
PTU5-I	08-MAY-13	E601	<0.5	<b>0.53</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>3.6</b>	<0.5
PTU5-I	06-JUN-13	E601	<0.5	<b>0.51</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>3.4</b>	<0.5
PTU5-E	09-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU5-E	08-MAY-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU5-E	06-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TF406-NW</b>													
W-1801	10-APR-13	E601	<0.5	<b>1.1</b>	<0.5	<0.5	<0.5	<1	<b>4</b>	<b>0.68</b>	<0.5	<b>20</b>	<0.5
GTU03-I	07-MAY-13	E601	<0.5	<b>1.2</b>	<0.5	<0.5	<0.5	<1	<b>4</b>	<b>0.68</b>	<0.5	<b>21</b>	<0.5
GTU03-I	05-JUN-13	E601	<0.5	<b>1.3</b>	<0.5	<0.5	<0.5	<1	<b>4</b>	<b>0.77</b>	<0.5	<b>21</b>	<0.5
GTU03-E	10-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TF406-NW (cont.)</b>													
GTU03-E	07-MAY-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU03-E	05-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TF518-N<sup>b</sup></b>													
W-1410	26-APR-13	E601	<b>2.4</b>	<b>2.4</b>	<0.5	<b>0.54</b>	<0.5	<1	<0.5	<0.5	<0.5	<b>16</b>	<0.5
<b>TF5475-1<sup>c</sup></b>													
W-1302-2	30-MAY-13	E601	<b>1.8</b>	<b>42</b>	<b>1.4</b>	<b>5.9</b>	<b>22</b>	<b>9.4</b>	<b>6</b>	<b>44</b>	<0.5	<b>350</b>	<0.5
<b>TF5475-2</b>													
GTU09-I	03-APR-13	E601	<b>2</b>	<b>18</b>	<b>0.51</b>	<b>2.7</b>	<b>16</b>	<1	<b>5.8</b>	<b>34</b>	<0.5	<b>270</b>	<0.5
GTU09-I	03-MAY-13	E601	<b>2</b>	<b>19</b>	<b>0.57</b>	<b>3</b>	<b>18</b>	<1	<b>6.1</b>	<b>33</b>	<0.5	<b>270</b>	<0.5
GTU09-I	05-JUN-13	E601	<b>2</b>	<b>19</b>	<b>0.56</b>	<b>3.2</b>	<b>18</b>	<1	<b>6.3</b>	<b>33</b>	<0.5	<b>270</b>	<0.5
GTU09-E	03-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU09-E	03-MAY-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU09-E	05-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TF5475-3<sup>d</sup></b>													
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Notes on following page.

**Table A-1. VOC analyses of influent and effluent samples by treatment facility.**

<sup>a</sup> TFA-E did not operate during the second quarter reporting period due to lack of ground water in extraction well W-254, the sole source of water for this facility.

<sup>b</sup> TF518-N did not operate during this reporting period due to mixed waste disposition issues.

<sup>c</sup> TF5475-1 did not operate during this reporting period due to mixed waste disposition issues.

<sup>d</sup> TF5475-3 did not operate during this reporting period due to mixed waste disposition issues.

Notes:

CTET = Carbon tetrachloride

CFORM = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFA</b>													
W-109	11-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<b>0.6</b>	<b>1.1</b>	<0.5	<0.5	<0.5
W-262	11-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
W-404	11-APR-13	E601	<0.5	<0.5	<b>0.7</b>	<0.5	<b>0.98</b>	<1	<0.5	<b>5.2</b>	<0.5	<0.5	<0.5
W-408	11-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
W-415	11-APR-13	E601	<0.5	<b>1.3</b>	<b>0.57</b>	<0.5	<b>1.4</b>	<1	<0.5	<b>11</b>	<0.5	<b>0.97</b>	<0.5
W-457	11-APR-13	E601	<0.5	<0.5	<b>0.7</b>	<0.5	<b>0.78</b>	<1	<0.5	<b>5.6</b>	<0.5	<0.5	<0.5
W-518	11-APR-13	E601	<0.5	<0.5	<b>5.6</b>	<0.5	<b>3</b>	<1	<0.5	<b>3.6</b>	<0.5	<0.5	<0.5
W-522	11-APR-13	E601	<0.5	<0.5	<b>1.4</b>	<0.5	<b>0.94</b>	<1	<0.5	<b>3.1</b>	<0.5	<0.5	<0.5
W-605	11-APR-13	E601	<0.5	<0.5	<b>0.71</b>	<0.5	<b>0.94</b>	<1	<0.5	<b>14</b>	<0.5	<b>0.75</b>	<0.5
W-614	11-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<b>5.3</b>	<0.5	<0.5	<0.5
W-712	11-APR-13	E601	<b>2.8</b>	<b>2.9</b>	<b>1</b>	<0.5	<b>3.4</b>	<1	<0.5	<b>2</b>	<0.5	<b>3.4</b>	<0.5
W-714	11-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<b>6.9</b>	<0.5	<0.5	<0.5
W-903	11-APR-13	E601	<0.5	<0.5	<b>0.83</b>	<0.5	<b>0.69</b>	<1	<0.5	<b>4.4</b>	<0.5	<0.5	<0.5
W-904	11-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<b>0.78</b>	<1	<0.5	<b>5</b>	<0.5	<0.5	<0.5
W-1001	11-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
W-1004	11-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<b>2</b>	<0.5	<0.5	<0.5
W-1009	11-APR-13	E601	<b>1</b>	<b>4.7</b>	<b>0.59</b>	<0.5	<b>2.8</b>	<1	<b>0.56</b>	<b>11</b>	<0.5	<b>1.8</b>	<0.5
<b>TFA-E<sup>a</sup></b>													
W-254	29-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<b>20</b>	<0.5	<b>0.5</b>	<0.5
<b>TFB</b>													
W-357	08-APR-13	E601	<b>1.4</b>	<b>2.8</b>	<0.5	<0.5	<b>1.5</b>	<1	<b>4.5</b>	<b>1.1</b>	<0.5	<b>30</b>	<0.5
W-610	08-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<b>0.74</b>	<1	<b>1.2</b>	<b>0.59</b>	<0.5	<b>1.2</b>	<0.5
W-620	08-APR-13	E601	<0.5	<b>0.9</b>	<0.5	<0.5	<b>0.82</b>	<1	<b>1.6</b>	<b>1</b>	<0.5	<b>3.6</b>	<0.5
W-621	08-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<b>0.5</b>	<0.5	<0.5	<b>1.3</b>	<0.5
W-655	08-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<b>5.3</b>	<0.5	<0.5	<b>0.81</b>	<0.5
W-704	08-APR-13	E601	<b>0.55</b>	<b>3.7</b>	<0.5	<0.5	<b>2</b>	<1	<b>5.5</b>	<b>2.6</b>	<0.5	<b>17</b>	<0.5
W-1423	08-APR-13	E601	<b>0.84</b>	<b>4.8</b>	<0.5	<0.5	<b>3.1</b>	<1	<b>3</b>	<b>1.8</b>	<0.5	<b>9</b>	<0.5
W-2501	08-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<b>1.5</b>	<0.5	<0.5	<b>6.2</b>	<0.5
W-2502	08-APR-13	E601	<b>0.79</b>	<b>3.9</b>	<0.5	<0.5	<b>2.1</b>	<1	<b>0.59</b>	<0.5	<0.5	<b>2.4</b>	<0.5
<b>TFC</b>													
W-701	03-APR-13	E601	<0.5	<b>1.8</b>	<0.5	<0.5	<b>1.4</b>	<1	<b>26</b>	<b>2.9</b>	<0.5	<b>18</b>	<0.5
W-1015	03-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<b>0.65</b>	<1	<b>1.7</b>	<b>0.84</b>	<0.5	<b>4</b>	<0.5
W-1102	03-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<b>2.4</b>	<0.5	<0.5	<b>1.3</b>	<0.5
W-1103	03-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>1.1</b>	<0.5
W-1104	03-APR-13	E601	<0.5	<b>0.63</b>	<0.5	<0.5	<0.5	<1	<b>2.4</b>	<b>4.6</b>	<0.5	<b>8.6</b>	<0.5
W-1116	03-APR-13	E601	<0.5	<b>1</b>	<0.5	<0.5	<0.5	<1	<b>5.8</b>	<b>3.6</b>	<0.5	<b>7.3</b>	<0.5



Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFC-E</b>													
W-368	03-APR-13	E601	<0.5	<b>5.4</b>	<0.5	<0.5	<0.5	<1	<b>19</b>	<b>2.6</b>	<0.5	<b>12</b>	<b>3.9</b>
W-413	03-APR-13	E601	<0.5	<b>14</b>	<0.5	<0.5	<b>0.89</b>	<1	<b>11</b>	<0.5	<0.5	<b>7.4</b>	<b>4.2</b>
<b>TFC-SE</b>													
W-1213	04-APR-13	E601	<0.5	<b>6.8</b>	<0.5	<0.5	<b>1.8</b>	<1	<b>6.5</b>	<0.5	<0.5	<b>11</b>	<0.5
W-2201	04-APR-13	E601	<0.5	<b>7</b>	<0.5	<0.5	<b>1.7</b>	<1	<b>17</b>	<b>0.77</b>	<0.5	<b>14</b>	<b>1.2</b>
<b>TFD</b>													
W-351	04-APR-13	E601	<b>27</b>	<b>4.6</b>	<0.5	<b>0.86</b>	<b>6</b>	<1	<b>5.4</b>	<b>7.1</b>	<0.5	<b>520</b>	<b>1.2</b>
W-653	04-APR-13	E601	<b>20</b>	<b>5.8</b>	<0.5	<0.5	<b>0.73</b>	<1	<b>3</b>	<b>0.76</b>	<0.5	<b>630</b>	<0.5
W-906	08-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>2.6</b>	<0.5
W-907-2	04-APR-13	E601	<0.5	<b>4.3</b>	<0.5	<0.5	<b>3</b>	<1	<b>1.2</b>	<b>6.2</b>	<0.5	<b>63</b>	<0.5
W-2011	04-APR-13	E601	<b>0.8</b>	<b>0.75</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>17</b>	<0.5
W-2101	04-APR-13	E601	<b>3.2</b>	<b>1.7</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>170</b>	<0.5
W-2102	04-APR-13	E601	<b>12</b>	<b>4.2</b>	<0.5	<0.5	<0.5	<1	<b>1.4</b>	<0.5	<0.5	<b>400</b>	<b>0.97</b>
W-1206	04-APR-13	E601	<b>0.87</b>	<b>3.6</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>15</b>	<0.5
W-1208	04-APR-13	E601	<b>2.1</b>	<b>1.8</b>	<0.5	<0.5	<0.5	<1	<0.5	<b>0.53</b>	<0.5	<b>43</b>	<b>32</b>
<b>TFD-E</b>													
W-2006 <sup>b</sup>	03-JAN-13	E601	<b>0.9</b>	<b>1.7</b>	<b>2.1</b>	<b>6.6</b>	<b>73</b>	<1	<0.5	<b>69</b>	<0.5	<b>370</b>	<0.5
W-1301	03-APR-13	E601	<b>5.9</b>	<b>2.1</b>	<b>1.5</b>	<b>4.9</b>	<b>42</b>	<1	<b>0.68</b>	<b>32</b>	<0.5	<b>220</b>	<0.5
W-1303	03-APR-13	E601	<b>3.9</b>	<b>2.4</b>	<b>0.8</b>	<b>3.2</b>	<b>5.9</b>	<b>1.3</b>	<0.5	<b>7.5</b>	<0.5	<b>160</b>	<b>4.2</b>
W-1306	03-APR-13	E601	<b>1.8</b>	<b>2</b>	<0.5	<0.5	<0.5	<1	<0.5	<b>2.4</b>	<0.5	<b>54</b>	<0.5
W-1307	03-APR-13	E601	<b>2.7</b>	<b>0.58</b>	<0.5	<0.5	<0.5	<1	<0.5	<b>0.73</b>	<0.5	<b>34</b>	<0.5
W-1550	03-APR-13	E601	<b>7.7</b>	<b>5.1</b>	<0.5	<0.5	<b>0.81</b>	<1	<b>0.7</b>	<b>2.8</b>	<0.5	<b>200</b>	<0.5
W-2203	03-APR-13	E601	<b>10</b>	<b>2.7</b>	<0.5	<0.5	<b>2.1</b>	<1	<b>2</b>	<b>6.4</b>	<0.5	<b>96</b>	<0.5
<b>TFD-HPD</b>													
W-1254	10-APR-13	E601	<b>1.3</b>	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>32</b>	<0.5
W-1650	26-APR-13	E601	<b>2.2</b>	<b>1.1</b>	<0.5	<0.5	<0.5	<1	<b>1.4</b>	<0.5	<0.5	<b>95</b>	<0.5
W-1653	26-APR-13	E601	<0.5	<b>1.7</b>	<0.5	<0.5	<0.5	<b>21</b>	<0.5	<b>0.59</b>	<0.5	<b>95</b>	<0.5
W-1655	26-APR-13	E601	<0.5	<b>2</b>	<0.5	<0.5	<0.5	<b>5.8</b>	<0.5	<b>2.1</b>	<0.5	<b>55</b>	<0.5
W-1657	26-APR-13	E601	<b>3.3</b>	<b>2.9</b>	<0.5	<0.5	<0.5	<b>2</b>	<b>1.8</b>	<0.5	<0.5	<b>230</b>	<0.5
<b>TFD-S</b>													
W-1503	11-APR-13	E601	<b>1.6</b>	<b>1.6</b>	<0.5	<0.5	<b>1.2</b>	<1	<0.5	<b>1.7</b>	<0.5	<b>46</b>	<0.5
W-1504	11-APR-13	E601	<0.5	<b>0.98</b>	<0.5	<0.5	<b>8.5</b>	<b>1.2</b>	<b>2.3</b>	<b>13</b>	<0.5	<b>67</b>	<0.5
W-1510	11-APR-13	E601	<0.5	<b>2.1</b>	<0.5	<0.5	<b>2.2</b>	<1	<0.5	<b>3.5</b>	<0.5	<b>27</b>	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET -<	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFD-SE</b>													
W-314	03-APR-13	E601	<b>0.5</b>	<b>4.2</b>	<b>0.6</b>	<b>0.75</b>	<b>4.6</b>	<1	<b>2</b>	<b>8.4</b>	<0.5	<b>72</b>	<0.5
W-2005	03-APR-13	E601	<0.5	<b>0.54</b>	<0.5	<0.5	<b>3.3</b>	<1	<0.5	<b>8.2</b>	<0.5	<b>15</b>	<0.5
W-1308	03-APR-13	E601	<0.5	<b>0.87</b>	<b>0.67</b>	<b>1.5</b>	<b>11</b>	<1	<0.5	<b>76</b>	<0.5	<b>67</b>	<0.5
W-1403	03-APR-13	E601	<b>2.1</b>	<b>15</b>	<b>1.2</b>	<b>4.7</b>	<b>36</b>	<1	<b>3.9</b>	<b>86</b>	<0.5	<b>340</b>	<0.5
W-1904	26-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	<b>2.4</b>	<1	<0.5	<b>14</b>	<0.5	<b>6</b>	<0.5
SIP-ETC-201	26-JUN-13	E601	<0.5	<b>0.73</b>	<b>2.7</b>	<b>1.1</b>	<b>83</b>	<1	<0.5	<b>390</b>	<0.5	<b>240</b>	<0.5
<b>TFD-SS</b>													
W-1523	11-APR-13	E601	<b>3.5</b>	<b>3.2</b>	<0.5	<b>1.4</b>	<b>12</b>	<1	<b>1.4</b>	<b>16</b>	<0.5	<b>130</b>	<0.5
W-1601	11-APR-13	E601	<b>3.2</b>	<b>3.8</b>	<b>1.2</b>	<b>5.3</b>	<b>26</b>	<1	<b>1.4</b>	<b>81</b>	<0.5	<b>250</b>	<0.5
W-1602	11-APR-13	E601	<0.5	<b>1.4</b>	<0.5	<0.5	<b>0.62</b>	<1	<0.5	<b>1.7</b>	<0.5	<b>12</b>	<b>3.3</b>
W-1603	11-APR-13	E601	<b>1.3</b>	<b>1.8</b>	<b>0.7</b>	<b>2.3</b>	<b>10</b>	<1	<0.5	<b>20</b>	<0.5	<b>120</b>	<b>8</b>
<b>TFD-W</b>													
W-1215	10-APR-13	E601	<0.5	<b>7.9</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>4.2</b>	<b>19</b>
W-1216	10-APR-13	E601	<0.5	<b>4.6</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>2.7</b>	<b>29</b>
W-1902	10-APR-13	E601	<b>0.53</b>	<b>3.2</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>5.1</b>	<b>59</b>
<b>TFE-E</b>													
W-566	02-APR-13	E601	<0.5	<b>2.3</b>	<0.5	<0.5	<b>4.4</b>	<1	<b>7.1</b>	<b>2.7</b>	<0.5	<b>34</b>	<0.5
W-1109	02-APR-13	E601	<0.5	<b>0.51</b>	<0.5	<0.5	<b>24</b>	<1	<b>4.8</b>	<b>42</b>	<0.5	<b>150</b>	<0.5
W-1903	02-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<b>17</b>	<1	<b>5.5</b>	<b>15</b>	<0.5	<b>31</b>	<0.5
W-1909 <sup>b</sup>	14-NOV-11	E601	<0.5	<0.5	<0.5	<0.5	<b>9.1</b>	<b>1.1</b>	<0.5	<b>5.4</b>	<0.5	<b>6.5</b>	<0.5
W-2305	19-APR-13	E601	<0.5	<0.5	<b>0.69</b>	<0.5	<b>78</b>	<1	<b>26</b>	<b>86</b>	<0.5	<b>140</b>	<0.5
<b>TFE-HS</b>													
W-2105	04-APR-13	E601	<0.5	<b>0.93</b>	<0.5	<0.5	<b>2.2</b>	<b>3.6</b>	<b>3.8</b>	<b>16</b>	<0.5	<b>260</b>	<0.5
<b>TFE-NW</b>													
W-1211	10-APR-13	E601	<0.5	<b>1.4</b>	<0.5	<0.5	<0.5	<1	<b>1.3</b>	<0.5	<0.5	<b>8</b>	<0.5
W-1409	10-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<b>0.58</b>	<1	<0.5	<b>1.2</b>	<0.5	<b>23</b>	<0.5
<b>TFE-SE</b>													
W-359	02-APR-13	E601	<b>3.1</b>	<b>1.3</b>	<0.5	<0.5	<b>15</b>	<1	<b>5.5</b>	<b>7.9</b>	<0.5	<b>200</b>	<b>0.78</b>
<b>TFE-SW</b>													
W-1516	09-APR-13	E601	<b>0.57</b>	<b>1.2</b>	<0.5	<0.5	<b>0.54</b>	<1	<b>0.93</b>	<b>0.64</b>	<0.5	<b>12</b>	<0.5
W-1518	09-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<b>1.6</b>	<b>1.2</b>	<b>3.4</b>	<b>1.1</b>	<0.5	<b>13</b>	<0.5
W-1520	09-APR-13	E601	<b>9.8</b>	<b>6.3</b>	<0.5	<b>3.2</b>	<b>2.3</b>	<b>1.8</b>	<0.5	<b>13</b>	<0.5	<b>250</b>	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFE-SW (cont.)</b>													
W-1522	23-APR-13	E601	3.9	4.3	1	<0.5	8.4	16	1.7	2	<0.5	100	<0.5
<b>TFE-W</b>													
W-292	09-APR-13	E601	<0.5	0.75	<0.5	<0.5	0.89	2.2	1.4	1.2	<0.5	18	<0.5
W-305	09-APR-13	E601	<0.5	1.1	<0.5	<0.5	2.2	<1	17	8.9	<0.5	32	0.67
<b>TFG-1</b>													
W-1111	10-APR-13	E601	2.4	11	<0.5	<0.5	0.82	<1	<0.5	1	<0.5	3.6	<0.5
<b>TFG-N</b>													
W-1806	10-APR-13	E601	<0.5	0.74	<0.5	<0.5	<0.5	<1	<0.5	11	<0.5	3.4	<0.5
W-1807	10-APR-13	E601	<0.5	1.7	<0.5	<0.5	1.7	<1	1.6	18	<0.5	5.4	<0.5
<b>TF406</b>													
W-1309	09-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	2.1	<0.5
W-1310	09-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	3.8	<0.5
<b>TF406-NW</b>													
W-1801	10-APR-13	E601	<0.5	1.1	<0.5	<0.5	<0.5	<1	4	0.68	<0.5	20	<0.5
<b>TF518-N<sup>a</sup></b>													
W-1410	26-APR-13	E601	2.4	2.4	<0.5	0.54	<0.5	<1	<0.5	<0.5	<0.5	16	<0.5
<b>TF518-PZ</b>													
W-1615	06-JUN-13	E601	<0.5	<0.5	<0.5	<0.5	2.8	<1	<0.5	22	<0.5	120	<0.5
W-518-1913 <sup>b</sup>	23-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	0.76	<1	<0.5	3.8	<0.5	29	<0.5
W-518-1914 <sup>b</sup>	17-JAN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	44	<0.5	3.6	<0.5
W-518-1915	06-JUN-13	E601	<0.5	0.95	<0.5	<0.5	6.8	<1	<0.5	78	<0.5	670	<0.5
SVB-518-201 <sup>b</sup>	07-FEB-08	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	35	<0.5	8.5	<0.5
SVB-518-204 <sup>b</sup>	07-FEB-08	E601	<0.5	0.63	<0.5	<0.5	1.4	<1	<0.5	43	<0.5	550	<0.5
<b>TF5475-1<sup>a</sup></b>													
W-1302-2	30-MAY-13	E601	1.8	42	1.4	5.9	22	9.4	6	44	<0.5	350	<0.5
<b>TF5475-2</b>													
W-1108	03-APR-13	E601	1.9	18	0.53	2.6	16	<1	5.8	34	<0.5	270	<0.5
W-1415 <sup>b</sup>	15-OCT-12	E601	<0.5	6.5	<0.5	<0.5	3	7.2	<0.5	5.8	<0.5	47	<0.5

**Table A-2. VOC analyses of samples from treatment facility extraction wells.**

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TF5475-3<sup>a</sup></b>													
W-1604	30-MAY-13	E601	<b>4.6</b>	<b>84</b>	<b>2.3</b>	<b>25</b>	<b>42</b>	<b>3.9</b>	<b>9.6</b>	<b>96</b>	<0.5	<b>890</b>	<0.5
W-1605	23-MAY-13	E601	<0.5	<b>25</b>	<b>0.5</b>	<b>2.5</b>	<b>1.5</b>	<b>5.3</b>	<0.5	<b>4.8</b>	<0.5	<b>56</b>	<0.5
W-1608	23-MAY-13	E601	<0.5	<b>33</b>	<b>0.69</b>	<b>4.3</b>	<b>3</b>	<b>5.9</b>	<0.5	<b>9.1</b>	<0.5	<b>98</b>	<0.5
W-1609	23-MAY-13	E601	<0.5	<b>33</b>	<b>0.53</b>	<b>2.5</b>	<b>3.7</b>	<1	<0.5	<b>7</b>	<0.5	<b>68</b>	<0.5

Notes on following page.

**Table A-2. VOC analyses of samples from treatment facility extraction wells.**

<sup>a</sup> Treatment Facility did not operate during reporting period. Please refer to Table A-1 for details.

<sup>b</sup> Most recent VOC sample results available.

Notes:

CTET = Carbon tetrachloride

CFORM = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE PPM(V/V)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>VTFD-ETCS</b>													
W-1904	14-MAY-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<b>0.0095</b>	<0.005	<0.005	<b>0.21</b>	<0.005	<b>0.088</b>	<0.005
W-ETC-2003	14-MAY-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<b>0.005</b>	<0.005	<0.005	<b>0.084</b>	<0.005	<b>0.042</b>	<0.005
W-ETC-2004A	14-MAY-13	TO15DIT	<0.005	<b>0.011</b>	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.22</b>	<0.005	<b>0.085</b>	<0.005
W-ETC-2004B	14-MAY-13	TO15DIT	<0.005	<b>0.014</b>	<b>0.006</b>	<0.005	<b>0.11</b>	<0.005	<0.005	<b>0.61</b>	<0.005	<b>1.4</b>	<0.005
SIP-ETC-201	14-MAY-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<b>0.0079</b>	<0.005	<0.005	<b>0.0085</b>	<0.005	<b>0.01</b>	<0.005
<b>VTFD-HS<sup>a</sup></b>													
W-653 <sup>b</sup>	03-NOV-09	TO15DIT	<b>0.026</b>	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.016</b>	<0.005	<0.005	<b>0.58</b>	<0.005
W-2011 <sup>b</sup>	15-FEB-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.081</b>	<0.005
W-2101 <sup>b</sup>	03-NOV-09	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.052</b>	<0.005
W-2102 <sup>b</sup>	15-FEB-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.11</b>	<0.005
<b>VTFE-ELM</b>													
W-1903	14-MAY-13	TO15DIT	<0.005	<0.005	<b>0.0074</b>	<0.005	<b>0.87</b>	<0.005	<b>0.33</b>	<b>0.84</b>	<0.005	<b>2</b>	<0.005
W-1909 <sup>b</sup>	06-OCT-11	TO15DIT	<0.005	<b>0.034</b>	<0.005	<0.005	<b>0.51</b>	<0.005	<b>0.054</b>	<b>0.88</b>	<0.005	<b>1.2</b>	<0.005
W-2305 <sup>b</sup>	06-OCT-11	TO15DIT	<0.005	<0.005	<0.005	<0.005	<b>0.2</b>	<0.005	<b>0.036</b>	<b>0.46</b>	<0.005	<b>0.55</b>	<0.005
W-543-001	14-MAY-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<b>0.0072</b>	<0.005	<0.005	<b>0.6</b>	<0.005	<b>0.091</b>	<0.005
W-543-003	14-MAY-13	TO15DIT	<0.005	<b>0.022</b>	<0.005	<0.005	<b>0.067</b>	<0.005	<b>0.022</b>	<b>0.19</b>	<0.005	<b>0.47</b>	<0.005
W-543-1908	14-MAY-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<b>0.006</b>	<0.005	<0.005	<b>0.035</b>	<0.005	<b>0.12</b>	<0.005
<b>VTFE-HS</b>													
W-2105	21-MAY-13	TO15DIT	<0.005	<b>0.006</b>	<0.005	<0.005	<b>0.018</b>	<0.005	<b>0.097</b>	<b>0.14</b>	<0.005	<b>1.7</b>	<0.005
W-ETS-2008A	21-MAY-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.0054</b>	<0.005
W-ETS-2008B	21-MAY-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
W-ETS-2009	21-MAY-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.087</b>	<0.005	<b>0.25</b>	<0.005
W-ETS-2010A	21-MAY-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.02</b>	<0.005	<b>0.02</b>	<0.005
W-ETS-2010B	21-MAY-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.022</b>	<0.005	<b>0.031</b>	<0.005
<b>VTF406-HS</b>													
W-217	23-APR-13	TO15DIT	<b>0.11</b>	<b>0.043</b>	<b>0.0082</b>	<0.005	<b>0.58</b>	<b>0.013</b>	<b>0.12</b>	<b>0.63</b>	<0.005	<b>1.7</b>	<b>0.011</b>
W-514-2007A	23-APR-13	TO15DIT	<b>0.08</b>	<0.005	<0.005	<0.005	<b>0.036</b>	<0.005	<b>0.12</b>	<b>0.058</b>	<0.005	<b>0.29</b>	<b>2.9</b>
W-514-2007B	23-APR-13	TO15DIT	<b>0.061</b>	<b>0.024</b>	<0.005	<0.005	<b>0.3</b>	<0.005	<b>0.052</b>	<b>0.28</b>	<0.005	<b>0.86</b>	<b>0.064</b>
<b>VTF511</b>													
W-2204	22-MAY-13	TO15DIT	<b>0.079</b>	<b>0.021</b>	<0.0084	<b>0.027</b>	<b>0.016</b>	<0.0084	<0.0084	<b>0.47</b>	<0.0084	<b>5</b>	<0.0084
W-2205	22-MAY-13	TO15DIT	<b>0.033</b>	<0.005	<0.005	<0.005	<b>0.01</b>	<0.005	<0.005	<b>0.094</b>	<0.005	<b>1.3</b>	<0.005
W-2206	06-JUN-13	TO15DIT	<0.005	<b>0.006</b>	<0.005	<b>0.022</b>	<0.005	<0.005	<0.005	<b>0.13</b>	<0.005	<b>0.98</b>	<0.005
W-2207A	23-MAY-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.0084</b>	<0.005	<b>0.28</b>	<0.005
W-2207B	22-MAY-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.01</b>	<0.005	<b>0.81</b>	<0.005

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE PPM(V/V)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>VTF511 (cont.)</b>													
W-2208A	23-MAY-13	TO15DIT	<b>0.039</b>	<b>0.023</b>	<0.01	<0.01	<b>0.036</b>	<0.01	<0.01	<b>0.029</b>	<0.01	<b>7.1</b>	<b>0.037</b>
W-2208B	22-MAY-13	TO15DIT	<b>0.083</b>	<b>0.061</b>	<b>0.041</b>	<0.025	<b>0.37</b>	<b>0.11</b>	<b>0.06</b>	<b>0.26</b>	<0.025	<b>12</b>	<b>0.069</b>
<b>VTF518-PZ</b>													
W-1615	23-APR-13	TO15DIT	<b>0.011</b>	<b>0.0057</b>	<0.005	<0.005	<b>0.26</b>	<0.005	<b>0.058</b>	<b>1.8</b>	<0.005	<b>4.4</b>	<0.005
W-518-1913	15-MAY-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.014</b>	<0.005	<b>0.093</b>	<0.005
W-518-1914	15-MAY-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>4</b>	<b>0.0056</b>	<b>0.42</b>	<0.005
W-518-1915	23-APR-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<b>0.041</b>	<0.005	<0.005	<b>4.3</b>	<0.005	<b>1.9</b>	<0.005
SVB-518-201	15-MAY-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.024</b>	<0.005	<b>0.0087</b>	<0.005
SVB-518-204	15-MAY-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.042</b>	<0.005	<0.005	<0.005
<b>VTF5475<sup>c</sup></b>													
W-ETS-507	21-MAY-13	TO15DIT	<0.005	<b>0.91</b>	<0.005	<b>0.033</b>	<0.005	<0.005	<0.005	<b>0.17</b>	<0.005	<b>0.79</b>	<0.005
W-1605	23-MAY-13	TO15DIT	<0.005	<b>0.022</b>	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.0089</b>	<0.005	<b>0.082</b>	<0.005
W-1608	23-MAY-13	TO15DIT	<0.005	<b>0.013</b>	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.0062</b>	<0.005	<b>0.048</b>	<0.005
W-2211	30-MAY-13	TO15DIT	<0.01	<b>0.23</b>	<0.01	<b>0.026</b>	<b>0.12</b>	<0.01	<b>0.022</b>	<b>0.086</b>	<0.01	<b>0.72</b>	<0.01
W-2212	30-MAY-13	TO15DIT	<0.01	<b>0.039</b>	<0.01	<0.01	<b>0.038</b>	<0.01	<0.01	<b>0.012</b>	<0.01	<b>0.12</b>	<0.01
W-2302	22-MAY-13	TO15DIT	<0.005	<b>0.017</b>	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.011</b>	<0.005	<b>0.17</b>	<0.005
W-2303	22-MAY-13	TO15DIT	<0.005	<b>0.36</b>	<b>0.011</b>	<b>0.055</b>	<b>0.066</b>	<0.005	<b>0.012</b>	<b>0.16</b>	<0.005	<b>1.3</b>	<0.005
SVI-ETS-504	23-MAY-13	TO15DIT	<0.005	<b>0.022</b>	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.0086</b>	<0.005	<b>0.048</b>	<0.005

Notes on following page.

**Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.**

<sup>a</sup> VTFD-HS did not operate during reporting period due to dual extraction well ground water pump failure. Extraction wells are operated cyclically without applied-vacuum. Ground water is treated at TFD.

<sup>b</sup> Most recent VOC vapor sample results available.

<sup>c</sup> VTF5475 did not operate during reporting period due to mixed waste disposition issues.

Notes:

CTET = Carbon tetrachloride

CFORM = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.



**Table A-4. Chromium analyses of influent, effluent and receiving water samples by treatment facility.**

<b>Treatment Facility</b>	<b>Sample Station</b>	<b>Date Sampled</b>	<b>Chromium (total)<sup>a</sup> mg/L (ppm)</b>	<b>Hexavalent Chromium mg/L (ppm)</b>
<b>TFB</b>	TFB-E002	03-APR-13	0.023	NA
	TFB-E002	01-MAY-13	0.022	NA
	TFB-E002	03-JUN-13	0.02	NA
<b>TFC</b>	TFC-E003	03-APR-13	0.024	NA
	TFC-E003	01-MAY-13	0.023	NA
	TFC-E003	03-JUN-13	0.023	NA
<b>TFC-E</b>	MTU1-E	03-APR-13	0.045	NA
	MTU1-E	01-MAY-13	0.043	NA
	MTU1-E	05-JUN-13	0.043	NA
<b>TFC-SE</b>	PTU1-E	04-APR-13	0.036	NA
	PTU1-E	02-MAY-13	0.034	NA
	PTU1-E	04-JUN-13	0.035	NA

<sup>a</sup>A discharge limit of 0.050 ppm is set for total chromium during the dry season (April 1-November 30), and no limit is set for total chromium for the wet season (December 1-March 31); however, a limit of 0.022 ppm hexavalent chromium applies during the wet season. Discharge limits are defined in the Explanation of Significant Differences for metals discharge limits (April 1997).

Shaded values exceeded the discharge limit. See text for explanation.

## Explanation of Abbreviations

TFA-I001 is a sampling port located immediately prior to the TFA Treatment System.

TFA-E001 is a sampling port located immediately after the TFA Treatment System, at the beginning of the discharge pipeline.

TFA receiving water is routinely sampled at the TFG-ASW location.

TFB-I002 is a sampling port located immediately prior to the TFB Treatment System.

TFB-E002 is a sampling port located immediately after the TFB Treatment System, at the beginning of the discharge pipeline.

TFB-R002 is a sampling station in the drainage ditch north of TFB, located approximately 75 ft downstream from the discharge point.

TFC-I003 is a sampling port located immediately prior to the TFC Treatment System.

TFC-E003 is a sampling port located immediately after the TFC Treatment System, at the beginning of the discharge pipeline.

TFC-R003 is a sampling station in Arroyo Las Positas, located approximately 75 ft downstream from the TFC discharge point.

TFD-I004 is a sampling port located immediately prior to the TFD Treatment System.

TFD-E004 is a sampling port located immediately after the TFD Treatment System, prior to discharge to the Lake Haussmann or to the underground discharge pipeline leading to Arroyo Las Positas.

TFD-R004 is now combined with and collected at the TFC-R003 location. Results are reported under TFC-R003, as approved by the RWQCB.

CRD1-I is a sampling port located immediately prior to the catalytic column in the Catalytic Reductive Dehalogenation treatment unit 1 (CRD1).

CRD1-E is the effluent from the catalytic column in the Catalytic Reductive Dehalogenation treatment unit 1 (CRD1) and then reinjected at W-1302.

CRD2-I is a sampling port located immediately prior to the catalytic columns in the Catalytic Reductive Dehalogenation treatment unit 2 (CRD2).

CRD2-E is the effluent from the last catalytic column in the Catalytic Reductive Dehalogenation treatment unit 2 (CRD2) and then reinjected at W-1610.

GTU01-I is a sampling port located immediately prior to GTU01, which is currently operating in the TFG-1 area.

GTU01-E is a sampling port located immediately after GTU01, which is currently operating in the TFG-1 area.

GTU01 receiving water is routinely sampled at the TFG-ASW location.

GTU03-I is a sampling port located immediately prior to GTU03, which is currently operating in the TF406 Northwest area.

GTU03-E is a sampling port located immediately after GTU03, which is currently operating in the TF406 Northwest area.

GTU03 receiving water is routinely sampled at the TFC-R003 location.

GTU07-I is a sampling port located immediately prior to GTU07, which is currently operating in the TFE Hotspot area.

GTU07-E is a sampling port located immediately after GTU07, which is currently operating in the TFE Hotspot area.

GTU07 receiving water is routinely sampled at the TFC-R003 location.

GTU09-I is a sampling port located immediately prior to GTU09, which is currently operating in the TF5475 area.

GTU09-E is a sampling port located immediately after GTU09, which is currently operating in the TF5475 area.

GTU09 receiving water is routinely sampled at the TFC-R003 location.

MTU02-I is a sampling port located immediately prior to MTU02, which is currently operating in the TFG North area.

MTU02-E is a sampling port located immediately after MTU02, which is currently operating in the TFG North area.

MTU02 receiving water is routinely sampled at the TFC-R003 location.

MTU03-I is a sampling port located immediately prior to MTU03, which is currently operating in the TFE Southwest area.

MTU03-E is a sampling port located immediately after MTU03, which is currently operating in the TFE Southwest area.

MTU03 receiving water is routinely sampled at the TFC-R003 location.

MTU04-I is a sampling port located immediately prior to MTU04, which is currently operating in the TFE Southeast area.

MTU04-E is a sampling port located immediately after MTU04, which is currently operating in the TFE Southeast area.

MTU04 receiving water is routinely sampled at the TFC-R003 location.

MTU05-I is a sampling port located immediately prior to MTU05, which is currently operating in the TFE West area.

MTU05-E is a sampling port located immediately after MTU05, which is currently operating in the TFE West area.

MTU05 receiving water is routinely sampled at the TFC-R003 location.

MTU1-I is a sampling port located immediately prior to MTU1, which is currently operating in the TFC East area.

MTU1-E is a sampling port located immediately after MTU1, which is currently operating in the TFC East area.

## Explanation of Abbreviations

MTU1 receiving water is routinely sampled at the TFC-R003 location.

PTU1-I is a sampling port located immediately prior to PTU-1, which is currently operating in the TFC Southeast area.

PTU1-E is a sampling port located immediately after PTU-1, which is currently operating in the TFC Southeast area.

PTU1 receiving water is routinely sampled at the TFC-R003 location.

PTU2-I is a sampling port located immediately prior to PTU-2, which is currently operating in the TFD South area.

PTU2-E is a sampling port located immediately after PTU-2, which is currently operating in the TFD South area.

PTU2 receiving water is routinely sampled at TFC-R003 during the wet season.

PTU3-I is a sampling port located immediately prior to PTU-3, which is currently operating in the TFE East area.

PTU3-E is a sampling port located immediately after PTU-3, which is currently operating in the TFE East area.

PTU3 receiving water is routinely sampled at the TFC-R003 location.

PTU5-I is a sampling port located immediately prior to PTU-5, which is currently operating in the TF406 extraction location.

PTU5-E is a sampling port located immediately after PTU-5, which is currently operating in the TF406 extraction location.

PTU5 receiving water is routinely sampled at the TFC-R003 location.

PTU6-I is a sampling port located immediately prior to PTU-6, which is currently operating in the TFD West area.

PTU6-E is a sampling port located immediately after PTU-6, which is currently operating in the TFD West area.

PTU6 receiving water is routinely sampled at the TFC-R003 location.

PTU8-I is a sampling port located immediately prior to PTU-8, which is currently operating in the TFD East area.

PTU8-E is a sampling port located immediately after PTU-8, which is currently operating in the TFD East area.

PTU8 receiving water is routinely sampled at the TFC-R003 location.

PTU9-I is a sampling port located immediately prior to PTU-9, which is currently operating in the TFE Northwest area.

PTU9-E is a sampling port located immediately after PTU-9, which is currently operating in the TFE Northwest area.

PTU9 receiving water is routinely sampled at the TFC-R003 location.

PTU10-I is a sampling port located immediately prior to PTU-10, which is currently operating in the TFD Helipad area.

PTU10-E is a sampling port located immediately after PTU-10, which is currently operating in the TFD Helipad area.

PTU10 receiving water is routinely sampled at the TFC-R003 location.

PTU11-I is a sampling port located immediately prior to PTU-11, which is currently operating in the TFD Southeast area.

PTU11-E is a sampling port located immediately after PTU-11, which is currently operating in the TFD Southeast area.

PTU11 receiving water is routinely sampled at the TFC-R003 location.

PTU12-I is a sampling port located immediately prior to PTU-12, which is currently operating in the TFD Southshore area.

PTU12-E is a sampling port located immediately after PTU-12, which is currently operating in the TFD Southshore area.

PTU12 receiving water is routinely sampled at the TFC-R003 location.

STU06-I is a sampling port located immediately prior to STU06, which is operating in the TFA East area.

STU06-E is a sampling port located immediately after STU06, which is operating in the TFA East area.

STU06 receiving water is routinely sampled at the TFG-ASW location.

STU09-I is a sampling port located immediately prior to STU09, which is currently operating in the TF518-North area.

STU09-E is a sampling port located immediately after STU09, which is currently operating in the TF518-North area.

STU09 receiving water is routinely sampled at the TFC-R003 location.

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**Attachment B**

**Self-Monitoring Reports**

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# Self-Monitoring Report

## LLNL Treatment Facility A (TFA)

### AREA TFA

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>30</u>	<u>31</u>																		
April	01	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	06	07	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>					
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	27	28	<u>29</u>	<u>30</u>					

Total monthly time facility operated (hours): 566

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-03-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>19.5</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-109	1,120	0.0
W-262	114	0.0
W-404	1,078,536	31.7
W-408	342,688	10.2
W-415	1,306,944	41.7
W-457	536,824	16.7
W-605	288,256	8.5
W-1009	818,848	24.0
W-518	156,948	4.7
W-522	515,948	14.7
W-614	368,296	11.1
W-712	245,228	7.4
W-714	257,276	8.8
W-903	498,224	14.6
W-904	1,321,184	39.8
W-1001	126,804	3.7
W-1004	376,616	11.2
Total:	<u>8,239,854</u>	<u>248.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>3,944,054</u>

**Self-Monitoring Report (cont'd)**  
**LLNL Treatment Facility A (TFA)**  
**AREA TFA**

Arroyo Seco

TFG-ASW

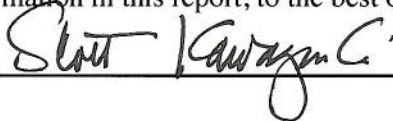
4,295,800

6. Comments:

Down 3-31-13 due to low air flow. Restarted 4-2-13. Down 4-5-13 due to I/O fault. Restarted 4-8-13. Down 4-9-13 due to I/O fault. Restarted 4-10-13. W-714 down on 4-13-13. Down 4-16-13 due to mechanical vault leak fault. Restarted, along with W-714, on 4-17-13. Down on 4-26-13 due to power surge. Restarted 4-29-13.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: \_\_\_\_\_



Date: 05-02-2013

# Self-Monitoring Report

## LLNL Treatment Facility A (TFA)

### AREA TFA

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
           **16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30** **31**

Total monthly time facility operated (hours): **754**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **05-01-2013**

Influent pH: **7.0**

Effluent pH: **7.5**

Effluent Temperature (°C): **18.5**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-614	491,492	11.2
W-712	319,400	7.2
W-714	376,352	8.4
W-903	653,888	14.5
W-904	1,770,176	39.6
W-109	0	0.0
W-404	1,458,991	31.7
W-408	173,336	10.3
W-415	1,715,824	39.9
W-457	656,504	15.4
W-605	384,568	8.5
W-522	633,996	16.1
W-1001	166,910	3.7
W-1004	503,728	11.4
W-1009	1,057,088	23.6
W-262	0	0.0
W-518	213,266	4.8
Total:	<u><b>10,575,519</b></u>	<u><b>246.3</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>West Perimeter Drainage Channel</b></u>	<u><b>TFB-R002</b></u>	<u><b>5,042,419</b></u>

**Self-Monitoring Report (cont'd)**  
**LLNL Treatment Facility A (TFA)**  
**AREA TFA**

Arroyo Seco

TFG-ASW

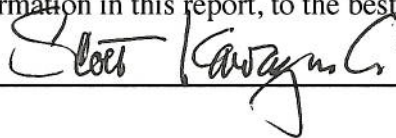
5,533,100

6. Comments:

W-408 down on 5-11-13 due to tripped breaker. Restarted on 5-15-13. W-408 down on 5-15-13 due to tripped breaker. Restarted on 5-21-13. W-408 down on 5-21-13 possibly due to pump failure.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: \_\_\_\_\_



Date: 06-03-2013



# Self-Monitoring Report

## LLNL Treatment Facility A (TFA)

### AREA TFA

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
              **16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26**

Total monthly time facility operated (hours): **630**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **06-03-2013**  
 Influent pH: **7.5**  
 Effluent pH: **7.5**  
 Effluent Temperature (°C): **19.7**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-109	0	0.0
W-262	0	0.0
W-404	1,238,508	32.1
W-408	0	0.0
W-415	1,462,912	38.0
W-457	553,792	13.1
W-605	321,976	8.5
W-518	176,980	4.8
W-522	514,192	13.8
W-614	420,212	11.2
W-1001	140,868	3.7
W-1004	429,096	11.3
W-1009	583,936	23.9
W-712	262,152	6.9
W-714	315,044	8.5
W-903	101,224	13.2
W-904	1,500,144	37.6
Total:	<u><b>8,021,036</b></u>	<u><b>226.6</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>West Perimeter Drainage Channel</b></u>	<u><b>TFB-R002</b></u>	<u><b>3,779,036</b></u>

**Self-Monitoring Report (cont'd)**  
**LLNL Treatment Facility A (TFA)**  
**AREA TFA**

Arroyo Seco

TFG-ASW

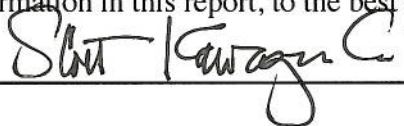
4,242,000

6. Comments:

W-903 and W-1009 down on 6-5-13. W-903 pump failure. W-1009 contactor failure. W-1009 contactor replaced and well restarted on 6-14-13.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: \_\_\_\_\_



Date: 07-02-2013

**Self-Monitoring Report**  
**LLNL Solar Treatment Unit 06 (STU06)**  
**AREA TFA-E**

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	29	30	31																
April	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15				
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-254</b>	<b>0</b>	<b>0.0</b>
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>0</u>

6. Comments:

Facility secured due to lack of water in extraction well.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 05-01-2013

**Self-Monitoring Report**  
**LLNL Solar Treatment Unit 06 (STU06)**  
**AREA TFA-E**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-254</b>	<b>0</b>	<b>0.0</b>
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>0</u>

6. Comments:

Facility secured due to lack of water in extraction well.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-31-2013

**Self-Monitoring Report**  
**LLNL Solar Treatment Unit 06 (STU06)**  
**AREA TFA-E**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May	31														
June	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26				

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-254</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>0</b></u>	<u><b>0.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<b><u>Arroyo Seco</u></b>	<b><u>TFG-ASW</u></b>	<b><u>0</u></b>

6. Comments:

Facility secured due to lack of water in extraction well.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-01-2013

# Self-Monitoring Report

## LLNL Treatment Facility B (TFB)

### AREA TFB

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>30</u>	<u>31</u>																		
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>					
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	27	28	<u>29</u>	<u>30</u>					

Total monthly time facility operated (hours): 715

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-03-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>18.6</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-357	334,536	8.0
W-610	250,935	5.8
W-620	254,643	6.0
W-621	148	0.0
W-655	90	0.0
W-704	703,960	16.6
W-1423	74,776	4.6
W-2501	700,206	16.7
W-2502	178,450	5.1
Total:	<u>2,497,744</u>	<u>62.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>2,497,744</u>

6. Comments:

Wet season hexavalent chromium treatment secured on 4-2-13. W-1423 secured on 4-9-13 for pump replacement/well control upgrade. W-2502 secured on 4-22-13 for pump replacement/well control upgrade. Facility down on 4-26-13 due to power surge. Restarted on 4-29-13.



**Self-Monitoring Report (cont'd)**  
**LLNL Treatment Facility B (TFB)**  
**AREA TFB**

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shirley Kawaguchi Date: 05-02-2013

**Land Observation Report date:  
TFB-R002 - West Perimeter Drainage Channel**

1. Reporting Period: Business Month April Year 2013

2. Date compliance sampling performed 04-03-2013

3. Weather Conditions:

Average air tempertaure (°C):	<u>14.82</u>
6-day total precipitation (in):	<u>0.24</u>
Average wind speed/direction (mph):	<u>3/ S</u>

4. Receiving Data:

Sample

<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
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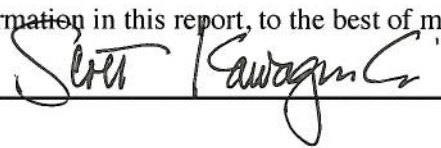
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>
------------------------	------------	------------

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-20-2013



# Self-Monitoring Report LLNL Treatment Facility B (TFB) AREA TFB

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
**16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30** **31**

Total monthly time facility operated (hours): 751

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **05-01-2013**  
Influent pH: **7.0**  
Effluent pH: **7.5**  
Effluent Temperature (°C): **18.4**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-357	360,784	7.8
W-610	262,245	5.7
W-620	251,145	5.9
W-621	0	0.0
W-655	0	0.0
W-704	736,160	16.4
W-1423	187,028	5.0
W-2501	728,936	16.3
W-2502	257,548	7.2
Total:	<u><b>2,783,846</b></u>	<u><b>64.3</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>West Perimeter Drainage Channel</b></u>	<u><b>TFB-R002</b></u>	<u><b>2,783,846</b></u>

6. Comments:

W-1423 and W-2501 restarted in level control mode on 5-8-13.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **06-03-2013**

**Land Observation Report date:**  
**TFB-R002 - West Perimeter Drainage Channel**

1. Reporting Period: Business Month May Year 2013

2. Date compliance sampling performed 05-01-2013

3. Weather Conditions:

Average air tempertaure (°C):	<u>18.75</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>5/ S</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shirley K. [Signature] Date: 06-11-2013

**Self-Monitoring Report  
LLNL Treatment Facility B (TFB)  
AREA TFB**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
**16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26**

Total monthly time facility operated (hours): **629**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **06-03-2013**  
Influent pH: **7.0**  
Effluent pH: **7.5**  
Effluent Temperature (°C): **18.7**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-357	300,432	7.8
W-610	214,680	5.8
W-620	209,848	5.7
W-621	0	0.0
W-655	0	0.0
W-704	621,680	16.5
W-1423	188,984	5.0
W-2501	609,428	16.4
W-2502	228,039	7.4
Total:	<u><b>2,373,091</b></u>	<u><b>64.6</b></u>

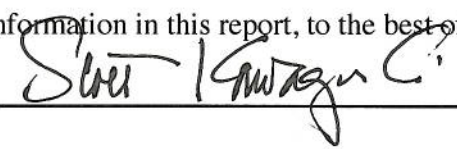
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>West Perimeter Drainage Channel</b></u>	<u><b>TFB-R002</b></u>	<u><b>2,373,091</b></u>

6. Comments:

W-2502 secured on 6-7-13 for pump replacement. Pump replaced and restarted on 6-13-13.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **07-02-2013**

**Land Observation Report date:  
TFB-R002 - West Perimeter Drainage Channel**

1. Reporting Period: Business Month June Year 2013

2. Date compliance sampling performed 06-03-2013

3. Weather Conditions:

Average air tempertaure (°C):	<u>18.69</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>6/ SW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-08-2013

**Self-Monitoring Report**  
**LLNL Treatment Facility C (TFC)**  
**AREA TFC**

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>30</u>	<u>31</u>																	
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 778

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-03-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>19.5</u>

4. Wellfield Data:

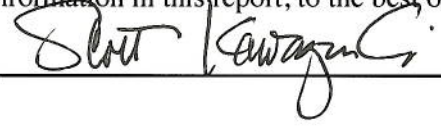
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-701	620,584	14.2
W-1015	155,540	3.6
W-1102	181,150	4.5
W-1103	101,628	2.7
W-1104	1,233,776	27.0
W-1116	78,203	1.8
Total:	<u>2,370,881</u>	<u>53.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>2,370,881</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-01-2013



**Land Observation Report date:  
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month April Year 2013

2. Date compliance sampling performed 04-03-2013

3. Weather Conditions:

Average air tempertaure (°C):	<u>14.82</u>
6-day total precipitation (in):	<u>0.24</u>
Average wind speed/direction (mph):	<u>3/ S</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shirley Garza Date: 05-20-2013

**Self-Monitoring Report  
LLNL Treatment Facility C (TFC)  
AREA TFC**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
**16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30** **31**

Total monthly time facility operated (hours): **755**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **05-01-2013**  
Influent pH: **7.0**  
Effluent pH: **7.5**  
Effluent Temperature (°C): **19.8**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-701</b>	<b>608,312</b>	<b>13.6</b>
<b>W-1015</b>	<b>143,920</b>	<b>3.4</b>
<b>W-1102</b>	<b>167,894</b>	<b>3.9</b>
<b>W-1103</b>	<b>125,566</b>	<b>1.8</b>
<b>W-1104</b>	<b>1,203,088</b>	<b>27.0</b>
<b>W-1116</b>	<b>70,375</b>	<b>1.6</b>
Total:	<u><b>2,319,155</b></u>	<u><b>51.3</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>2,319,155</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **06-03-2013**

**Land Observation Report date:  
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month May Year 2013

2. Date compliance sampling performed 05-01-2013

3. Weather Conditions:

Average air tempertaure (°C):	<u>18.75</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>5/S</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shel Kawaguchi Date: 06-11-2013



**Self-Monitoring Report**  
**LLNL Treatment Facility C (TFC)**  
**AREA TFC**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
**16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26**

Total monthly time facility operated (hours): **630**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **06-03-2013**  
Influent pH: **7.0**  
Effluent pH: **7.5**  
Effluent Temperature (°C): **20.1**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-701</b>	<b>502,640</b>	<b>13.6</b>
<b>W-1015</b>	<b>121,580</b>	<b>3.2</b>
<b>W-1102</b>	<b>146,006</b>	<b>3.7</b>
<b>W-1103</b>	<b>36,220</b>	<b>1.9</b>
<b>W-1104</b>	<b>1,000,672</b>	<b>26.7</b>
<b>W-1116</b>	<b>55,284</b>	<b>1.6</b>
Total:	<u><b>1,862,402</b></u>	<u><b>50.7</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>1,862,402</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **07-01-2013**

**Land Observation Report date:  
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month June Year 2013

2. Date compliance sampling performed 06-03-2013

3. Weather Conditions:

Average air tempertaure (°C):	<u>18.69</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>6/ SW</u>

4. Receiving Data:

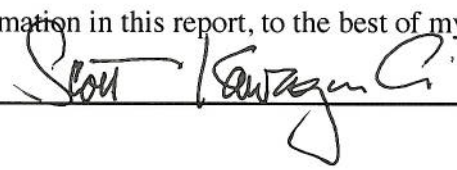
Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-08-2013

# Self-Monitoring Report

## LLNL Mini Treatment Unit 1 (MTU1)

### AREA TFC-E

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>29</u>	<u>30</u>	<u>31</u>														
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>		
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>		

Total monthly time facility operated (hours): 782

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-03-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>20.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-368</b>	<b>118,327</b>	<b>2.0</b>
<b>W-413</b>	<b>777,336</b>	<b>16.5</b>
Total:	<u><b>895,663</b></u>	<u><b>18.5</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>895,663</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-15-2013

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 1 (MTU1)**  
**AREA TFC-E**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
            16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 720

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-01-2013  
Influent pH: 7.0  
Effluent pH: 7.5  
Effluent Temperature (°C): 19.8

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-368	99,544	2.1
W-413	715,987	16.5
Total:	<u>815,531</u>	<u>18.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>815,531</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: ant Vnday Date: 06-03-2013

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 1 (MTU1)**  
**AREA TFC-E**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
             16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 668

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 06-05-2013  
Influent pH: 7.0  
Effluent pH: 7.5  
Effluent Temperature (°C): 20.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-368	91,838	1.5
W-413	668,387	16.7
Total:	<u>760,225</u>	<u>18.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>760,225</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-02-2013

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 1 (PTU1)**  
**AREA TFC-SE**

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>30</u>	<u>31</u>																				
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>							
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>							

Total monthly time facility operated (hours): 777

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-04-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>20.8</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1213</b>	<b>184,837</b>	<b>4.0</b>
<b>W-2201</b>	<b>553,436</b>	<b>12.0</b>
Total:	<u><b>738,273</b></u>	<u><b>16.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>738,273</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Rawley Date: 05-01-2013



**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 1 (PTU1)**  
**AREA TFC-SE**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 755

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-02-2013  
Influent pH: 7.0  
Effluent pH: 7.5  
Effluent Temperature (°C): 21.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1213	166,918	4.1
W-2201	536,396	12.1
Total:	<u>703,314</u>	<u>16.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>703,314</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawaguchi Date: 06-03-2013

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 1 (PTU1)**  
**AREA TFC-SE**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
             16 17 18 19 20 21 22 23 24 25 26

Total monthly time facility operated (hours): 633

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 06-04-2013  
Influent pH: 7.0  
Effluent pH: 7.5  
Effluent Temperature (°C): 20.6

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1213	131,665	3.6
W-2201	450,300	12.1
Total:	<u>581,965</u>	<u>15.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>581,965</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shirley Kawaguchi Date: 07-01-2013



# Self-Monitoring Report

## LLNL Treatment Facility D (TFD)

### AREA TFD

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>30</u>	<u>31</u>															
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>		
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>		

Total monthly time facility operated (hours): 747

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-04-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>20.7</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-351	55,898	1.3
W-653	3,867	3.0
W-906	28	0.0
W-907-2	443,335	10.1
W-2011	8,322	3.0
W-2101	8,291	3.0
W-2102	16,919	3.0
W-1206	549,287	12.4
W-1208	910,234	20.4
Total:	<u>1,996,181</u>	<u>56.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,996,181</u>
<u>TFD irrigation supply</u>	<u>TFD-IRR</u>	<u>0</u>

6. Comments:

Facility secured on 4-15-13 to change out blowers and diffusers. Restarted on 4-16-13.

**Self-Monitoring Report (cont'd)**  
**LLNL Treatment Facility D (TFD)**  
**AREA TFD**

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Sawyers Date: 05-21-2013

# Self-Monitoring Report LLNL Treatment Facility D (TFD) AREA TFD

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u><b>01</b></u>	<u><b>02</b></u>	<u><b>03</b></u>	<u><b>04</b></u>	<u><b>05</b></u>	<u><b>06</b></u>	<u><b>07</b></u>	<u><b>08</b></u>	<u><b>09</b></u>	<u><b>10</b></u>	<u><b>11</b></u>	<u><b>12</b></u>	<u><b>13</b></u>	<u><b>14</b></u>	<u><b>15</b></u>	
	<u><b>16</b></u>	<u><b>17</b></u>	<u><b>18</b></u>	<u><b>19</b></u>	<u><b>20</b></u>	<u><b>21</b></u>	<u><b>22</b></u>	<u><b>23</b></u>	<u><b>24</b></u>	<u><b>25</b></u>	<u><b>26</b></u>	<u><b>27</b></u>	<u><b>28</b></u>	<u><b>29</b></u>	<u><b>30</b></u>	<u><b>31</b></u>

Total monthly time facility operated (hours): **751**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u><b>05-02-2013</b></u>
Influent pH:	<u><b>7.5</b></u>
Effluent pH:	<u><b>7.5</b></u>
Effluent Temperature (°C):	<u><b>22.2</b></u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-351	57,476	1.3
W-653	3,460	0.0
W-906	0	0.0
W-907-2	430,873	9.7
W-2011	7,329	3.0
W-2101	7,979	3.0
W-2102	16,315	3.0
W-1206	389,114	12.1
W-1208	922,213	20.6
 Total:	<u><b>1,834,759</b></u>	<u><b>52.7</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>1,834,759</b></u>
<u><b>TFD irrigation supply</b></u>	<u><b>TFD-IRR</b></u>	<u><b>0</b></u>

6. Comments:

W-1206 down on 5-22-13 due to overload. Restarted on 5-30-13.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

**Self-Monitoring Report (cont'd)**  
**LLNL Treatment Facility D (TFD)**  
**AREA TFD**

Operator Signature: Steve Kawaguchi Date: 06-03-2013

# Self-Monitoring Report LLNL Treatment Facility D (TFD) AREA TFD

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
              **16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26**

Total monthly time facility operated (hours): **631**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **06-04-2013**  
 Influent pH: **7.0**  
 Effluent pH: **7.5**  
 Effluent Temperature (°C): **21.5**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-351	49,023	1.3
W-653	2,837	3.0
W-906	0	0.0
W-907-2	364,499	9.5
W-2011	5,709	3.0
W-1206	463,382	12.2
W-1208	773,591	20.6
W-2102	13,020	3.0
W-2101	6,460	3.0
Total:	<u><b>1,678,521</b></u>	<u><b>55.6</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>1,678,521</b></u>
<u><b>TFD irrigation supply</b></u>	<u><b>TFD-IRR</b></u>	<u><b>0</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

**Self-Monitoring Report (cont'd)**  
**LLNL Treatment Facility D (TFD)**  
**AREA TFD**

Operator Signature:  Date: **07-02-2013**

# Self-Monitoring Report

## LLNL Portable Treatment Unit 8 (PTU8)

### AREA TFD-E

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>29</u>	<u>30</u>	<u>31</u>												
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 778

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-03-2013  
 Influent pH: 7.0  
 Effluent pH: 7.5  
 Effluent Temperature (°C): 20.9

4. Wellfield Data:

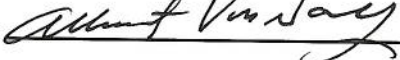
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2006	892	0.0
W-1301	32,842	0.7
W-1303	75,521	1.6
W-1306	15,742	0.3
W-1307	260,864	5.5
W-1550	27,918	0.6
W-2203	12,555	0.2
Total:	<u>426,334</u>	<u>8.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>426,334</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-15-2013



# Self-Monitoring Report

## LLNL Portable Treatment Unit 8 (PTU8)

### AREA TFD-E

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** 12 **13** 14 **15**  
**16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30** **31**

Total monthly time facility operated (hours): **624**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **05-01-2013**  
Influent pH: **7.0**  
Effluent pH: **7.5**  
Effluent Temperature (°C): **21.1**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-2006</b>	<b>767</b>	<b>0.0</b>
<b>W-1301</b>	<b>25,353</b>	<b>0.6</b>
<b>W-1303</b>	<b>59,614</b>	<b>1.5</b>
<b>W-1306</b>	<b>11,978</b>	<b>0.3</b>
<b>W-1307</b>	<b>213,296</b>	<b>5.3</b>
<b>W-1550</b>	<b>21,730</b>	<b>0.5</b>
<b>W-2203</b>	<b>9,742</b>	<b>0.3</b>
Total:	<u><b>342,480</b></u>	<u><b>8.5</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>342,480</b></u>

6. Comments:

Facility was down for discharge pump maintenance.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Ant VanDyke* Date: **06-03-2013**



**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 8 (PTU8)**  
**AREA TFD-E**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
             **16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): **672**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **06-05-2013**  
Influent pH: **7.0**  
Effluent pH: **7.5**  
Effluent Temperature (°C): **21.2**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-2006</b>	<b>759</b>	<b>0.0</b>
<b>W-1301</b>	<b>24,661</b>	<b>0.6</b>
<b>W-1303</b>	<b>56,739</b>	<b>1.4</b>
<b>W-1306</b>	<b>11,724</b>	<b>0.3</b>
<b>W-1307</b>	<b>153,364</b>	<b>5.0</b>
<b>W-1550</b>	<b>22,039</b>	<b>0.5</b>
<b>W-2203</b>	<b>9,902</b>	<b>0.2</b>
Total:	<u><b>279,188</b></u>	<u><b>8.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>279,188</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **07-02-2013**

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 10 (PTU10)**  
**AREA TFD-HPD**

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>30</u>	<u>31</u>																								
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>											
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>											

Total monthly time facility operated (hours): 776

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-10-2013</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1254</b>	<b>180,559</b>	<b>3.8</b>
Total:	<u><b>180,559</b></u>	<u><b>3.8</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>180,559</b></u>

6. Comments:  
NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kidd Date: 05-07-2013

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 10 (PTU10)**  
**AREA TFD-HPD**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 751

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-08-2013  
Influent pH: 7.5  
Effluent pH: 7.5  
Effluent Temperature (°C): 21.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1254	214,634	5.8
Total:	<u>214,634</u>	<u>5.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>214,634</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kidd Date: 06-05-2013

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 10 (PTU10)**  
**AREA TFD-HPD**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
             **16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): **629**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **06-06-2013**  
Influent pH: **7.5**  
Effluent pH: **7.6**  
Effluent Temperature (°C): **22.4**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1254</b>	<b>213,945</b>	<b>3.6</b>
Total:	<u><b>213,945</b></u>	<u><b>3.6</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>213,945</b></u>

6. Comments:

The facility shut down at 07:07 on 6-16-13 due to low flow. The facility was restarted at 08:51 on 6-18-13.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Billy Kridel* Date: **07-12-2013**

**Self-Monitoring Report  
LLNL ISB01 (ISB01)  
AREA TFD-HPD**

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>30</u>	<u>31</u>																	
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 745

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1650	920	3.0
W-1653	541	1.2
W-1655	7	4.0
W-1657	1	1.9
Total:	<u>1,469</u>	<u>10.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>ISB01 injection well</u>	<u>W-1552</u>	<u>1,469</u>

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system, and water is not discharged to the environment. Water was circulated through the system, but was not treated. The facility was shut down at 15:42 on 4-25-13 and restarted at 11:56 on 4-26-13 at the time water sampling was done. The facility was down for a little more than 20 hrs.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kuter Date: 05-13-2013



**Self-Monitoring Report  
LLNL ISB01 (ISB01)  
AREA TFD-HPD**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 700

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1650	389	2.9
W-1653	180	1.4
W-1655	0	0.0
W-1657	0	0.0
Total:	<u>569</u>	<u>4.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>ISB01 injection well</u>	<u>W-1552</u>	<u>569</u>

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system, and water is not discharged to the environment. Water was circulated through the system, but was not treated. The facility was shut down at 13:55 on 5-15-13 and restarted at 10:04 on 5-17-13. During this time a strategy upgrade was performed and a functional test was performed.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kuhn Date: 06-05-2013

**Self-Monitoring Report  
LLNL ISB01 (ISB01)  
AREA TFD-HPD**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June      **01** **02** **03** **04** **05** **06** **07** 08 09 **10** **11** **12** **13** **14** **15**  
            **16** **17** **18** 19 20 21 22 23 **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): 433

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1650</b>	<b>217</b>	<b>2.5</b>
<b>W-1653</b>	<b>134</b>	<b>1.5</b>
<b>W-1655</b>	<b>0</b>	<b>0.0</b>
<b>W-1657</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>351</b></u>	<u><b>4.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>ISB01 injection well</b></u>	<u><b>W-1552</b></u>	<u><b>351</b></u>

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system, and water is not discharged to the environment. Water was circulated through the system, but was not treated. The facility was shut down at 16:22 on 6-6-13 due to power being cycled to FCS. The facility was restarted at 14:02 on 6-7-13. The facility was shut down at 14:16 on 6-7-13 to fix a leak at W-1653. The facility was restarted at 13:41 on 6-10-13. The facility was shut down at 15:16 on 6-18-13 for recirculation of water at w-1552. The facility was restarted at 10:57 on 6-24-13.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

**Self-Monitoring Report (cont'd)**  
**LLNL ISB01 (ISB01)**  
**AREA TFD-HPD**

Operator Signature: Billy Kridel Date: 07-16-2013



**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 2 (PTU2)**  
**AREA TFD-S**

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>30</u>	<u>31</u>																	
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 780

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-11-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>23.3</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1503	445,336	9.6
W-1504	370,778	7.7
W-1510	229,320	4.9
Total:	<u>1,045,434</u>	<u>22.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,045,434</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature  Date: 05-01-2013

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 2 (PTU2)**  
**AREA TFD-S**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 639

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-08-2013  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 23.5

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1503	363,696	9.6
W-1504	334,900	8.9
W-1510	183,168	5.0
Total:	<u>881,764</u>	<u>23.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>881,764</u>

6. Comments:

System secure 5/24/13 to 5/28/13 due to electronic communications trouble shooting.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-03-2013

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 2 (PTU2)**  
**AREA TFD-S**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June      **01** **02** **03** **04** **05** **06** **07** 08 09 **10** **11** **12** **13** **14** **15**  
**16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): **606**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **06-05-2013**  
Influent pH: **7.0**  
Effluent pH: **7.0**  
Effluent Temperature (°C): **23**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1503</b>	<b>389,192</b>	<b>10.6</b>
<b>W-1504</b>	<b>322,980</b>	<b>8.9</b>
<b>W-1510</b>	<b>172,710</b>	<b>4.8</b>
Total:	<u><b>884,882</b></u>	<u><b>24.4</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>884,882</b></u>

6. Comments:

System shut down 6/7/13 to 6/10/13 due to electronic interlock alarm.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **07-01-2013**

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 11 (PTU11)**  
**AREA TFD-SE**

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>29</u>	<u>30</u>	<u>31</u>																
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 792

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-03-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>19.9</u>

4. Wellfield Data:


<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-314	354,856	7.4
W-2005	53,394	1.1
W-1308	88,076	1.9
W-1403	49,282	1.0
W-1904	0	0.0
SIP-ETC-201	0	0.0
Total:	<u>545,608</u>	<u>11.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>545,608</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-15-2013

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 11 (PTU11)**  
**AREA TFD-SE**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
            16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 744

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-01-2013  
Influent pH: 7.0  
Effluent pH: 7.5  
Effluent Temperature (°C): 20.4

4. Wellfield Data:

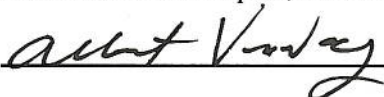
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-314	317,914	6.8
W-2005	43,375	0.9
W-1308	75,445	1.7
W-1403	45,314	1.0
W-1904	0	0.0
SIP-ETC-201	0	0.0
Total:	<u>482,048</u>	<u>10.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>482,048</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-03-2013



# Self-Monitoring Report

## LLNL Portable Treatment Unit 11 (PTU11)

### AREA TFD-SE

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
              16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 666

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 06-05-2013  
 Influent pH: 7.0  
 Effluent pH: 7.5  
 Effluent Temperature (°C): 20.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-314	261,657	6.8
W-2005	28,220	0.7
W-1308	62,827	1.5
W-1403	40,308	1.0
W-1904	0	0.0
SIP-ETC-201	0	0.0
Total:	<u>393,012</u>	<u>10.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>393,012</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-02-2013

# Self-Monitoring Report

## LLNL Portable Treatment Unit 12 (PTU12)

### AREA TFD-SS

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>30</u>	<u>31</u>																				
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>							
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>							

Total monthly time facility operated (hours): 780

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>03-30-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>21.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1523	282,288	6.1
W-1601	46,612	1.0
W-1602	186,279	4.0
W-1603	593,362	12.9
Total:	<u>1,108,541</u>	<u>23.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,108,541</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-01-2013

# Self-Monitoring Report

## LLNL Portable Treatment Unit 12 (PTU12)

### AREA TFD-SS

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 751

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-08-2013  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 21.5

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1523	276,208	6.0
W-1601	44,679	1.0
W-1602	181,020	4.1
W-1603	539,755	12.0
Total:	<u>1,041,662</u>	<u>23.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,041,662</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-03-2013



# Self-Monitoring Report

## LLNL Portable Treatment Unit 12 (PTU12)

### AREA TFD-SS

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>		

Total monthly time facility operated (hours): 679

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-05-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.8</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1523	257,391	6.4
W-1601	40,135	1.0
W-1602	163,803	4.0
W-1603	493,668	12.2
Total:	<u>954,997</u>	<u>23.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>954,997</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-01-2013

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 6 (PTU6)**  
**AREA TFD-W**

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>30</u>	<u>31</u>																								
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>											
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>											

Total monthly time facility operated (hours): 776

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-10-2013</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>26.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1215	465,525	10.2
W-1216	462,951	10.0
W-1902	798,130	18.2
Total:	<u>1,726,606</u>	<u>38.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,726,606</u>

6. Comments:

SOP 3.2 on W-1902 was completed on 4-3-13 and the pump was down for approximately 20 hrs.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kild Date: 05-07-2013

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 6 (PTU6)**  
**AREA TFD-W**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 752

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-08-2013  
Influent pH: 7.5  
Effluent pH: 7.6  
Effluent Temperature (°C): 22.3

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1215	451,090	10.0
W-1216	450,496	10.2
W-1902	805,728	18.2
Total:	<u>1,707,314</u>	<u>38.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,707,314</u>

6. Comments:  
NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kridel Date: 06-05-2013

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 6 (PTU6)**  
**AREA TFD-W**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
             16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 679

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 06-06-2013  
Influent pH: 7.5  
Effluent pH: 7.5  
Effluent Temperature (°C): 25.3

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1215	408,382	10.1
W-1216	407,954	10.2
W-1902	733,694	18.2
Total:	<u>1,550,030</u>	<u>38.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,550,030</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kidd Date: 07-16-2013

# Self-Monitoring Report

## LLNL Vapor Extraction System 11 (VES11)

### AREA VTFD-ETCS

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

March	<u><b>30</b></u>	<u><b>31</b></u>																				
April	<u><b>01</b></u>	<u><b>02</b></u>	<u><b>03</b></u>	<u><b>04</b></u>	<u><b>05</b></u>	<u><b>06</b></u>	<u><b>07</b></u>	<u><b>08</b></u>	<u><b>09</b></u>	<u><b>10</b></u>	<u><b>11</b></u>	<u><b>12</b></u>	<u><b>13</b></u>	<u><b>14</b></u>	<u><b>15</b></u>							
	<u><b>16</b></u>	<u><b>17</b></u>	<u><b>18</b></u>	<u><b>19</b></u>	<u><b>20</b></u>	<u><b>21</b></u>	<u><b>22</b></u>	<u><b>23</b></u>	<u><b>24</b></u>	<u><b>25</b></u>	<u><b>26</b></u>	<u><b>27</b></u>	<u><b>28</b></u>	<u><b>29</b></u>	<u><b>30</b></u>							

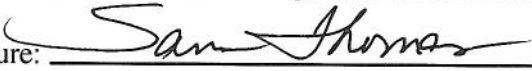
3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1904	0	0.0	0	0	0
W-ETC-2003	729,492	18.7	-1.41	72	736
W-ETC-2004A	378,644	9.9	-7.73	72	736
W-ETC-2004B	985,909	21.0	-11.08	72	736
SIP-ETC-201	0	0.0	0	0	0
Total:	<u><b>2,094,045</b></u>	<u><b>49.6</b></u>			

4. Comments:

Facility shutdown 4/16 at 08:30 due to high condensate tank level. Facility was restarted 4/17 at 08:15. Facility shutdown 4/22 at 17:58 due to low discharge separator level. Facility was restarted 4/23 at 13:35. As a result of facility totalizers accumulating while facility at a static state, facility hours of operation and well field cumulative volumes entered on this report have been adjusted. Facility was shutdown several days during reporting month for 5 minutes or less to remove water from inlet separator.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **05-08-2013**



# Self-Monitoring Report

## LLNL Vapor Extraction System 11 (VES11)

### AREA VTFD-ETCS

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
             16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1904	81	0.0	0	0	1
W-ETC-2003	484,920	11.2	-.83	63	711
W-ETC-2004A	157,074	3.3	-3.96	63	711
W-ETC-2004B	713,969	17.0	-3.71	63	711
SIP-ETC-201	15	0.0	0	0	0
Total:	<u>1,356,059</u>	<u>31.5</u>			

4. Comments:

Facility shutdown 5/8 @ 19:20 hrs due to high condensate tank level alarm.  
 Facility was restarted 5/9 @ 11:55. Facility shutdown 5/23 @ 09:28 due to high  
 condensate collection tank level. Facility was restarted at 13:40. Cumulative  
 volumes and monthly hours of operation entered on this report have been adjusted  
 due to facility and well field totalizers accumulating while facility was offline.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 06-04-2013

# Self-Monitoring Report

## LLNL Vapor Extraction System 11 (VES11)

### AREA VTFD-ETCS

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

May	<u>31</u>														
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	09	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>			

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1904	0	0.0	0	0	0
W-ETC-2003	418,174	10.5	-.73	78	635
W-ETC-2004A	89,783	2.4	-3.36	78	635
W-ETC-2004B	606,408	15.5	-3.04	78	635
SIP-ETC-201	0	0.0	0	0	0
Total:	<u>1,114,365</u>	<u>28.5</u>			

4. Comments:

Facility shutdown 6/8/13 at 19:42 due to low operating liquid level. Facility was restarted 6/10 at 13:22.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-05-2013

# Self-Monitoring Report

## LLNL Vapor Extraction System 13 (VES13)

### AREA VTFD-HS

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

March	29	30	31													
April	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	

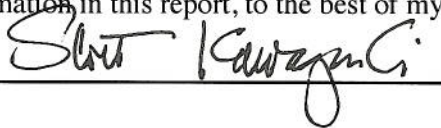
3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-653</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2011</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2101</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2102</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total:	<u><b>0</b></u>	<u><b>0.0</b></u>			

4. Comments:

System did not operate during this period.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-01-2013



# Self-Monitoring Report

## LLNL Vapor Extraction System 13 (VES13)

### AREA VTFD-HS

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

May	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-653</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2011</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2101</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2102</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<hr/>					
Total:	<u><b>0</b></u>	<u><b>0.0</b></u>			

4. Comments:

System did not operate during this period.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **05-31-2013**

# Self-Monitoring Report

## LLNL Vapor Extraction System 13 (VES13)

### AREA VTFD-HS

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

May	31														
June	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26				

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-653</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2011</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2101</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2102</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total:	<u>0</u>	<u>0.0</u>			

4. Comments:

System did not operate during this period.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-01-2013

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 3 (PTU3)**  
**AREA TFE-E**

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>30</u>	<u>31</u>																	
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 772

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-02-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>21.3</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-566	383,401	8.4
W-1109	50,997	1.1
W-1903	20,686	0.4
W-1909	0	0.0
W-2305	39	0.0
Total:	<u>455,123</u>	<u>9.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>455,123</u>

6. Comments:

Facility secured 4/18 at 09:35 to replace SSR module at W-2305. Facility was restarted at 14:53.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 05-08-2013

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 3 (PTU3)**  
**AREA TFE-E**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
            16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 734

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-01-2013  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 20.5

4. Wellfield Data:

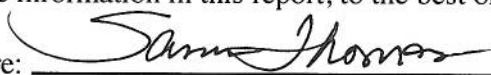
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-566	363,460	8.3
W-1109	34,814	1.1
W-1903	14,358	0.4
W-1909	0	0.0
W-2305	0	0.0
Total:	<u>412,632</u>	<u>9.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>412,632</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-15-2013

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 3 (PTU3)**  
**AREA TFE-E**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>31</u>														
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>			

Total monthly time facility operated (hours): 677

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>05-31-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>21.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-566	334,087	8.3
W-1109	35,890	0.9
W-1903	11,085	0.2
W-1909	0	0.0
W-2305	0	0.0
Total:	<u>381,062</u>	<u>9.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>381,062</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sanne Thomas Date: 07-15-2013



**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 07 (GTU07)**  
**AREA TFE-HS**

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>30</u>	<u>31</u>																	
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 763

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-04-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>16.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-2105</b>	<b>936</b>	<b>0.8</b>
Total:	<u><b>936</b></u>	<u><b>0.8</b></u>

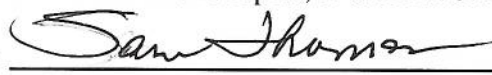
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>936</b></u>

6. Comments:

GTU 07/W-2105 secured 4/3 at 14:40 in preparation for monthly compliance sampling. Facility was restarted 4/4 at 08:05. GTU07/W-2105 utilizes vacuum-enhanced groundwater extraction combined with cyclic pump operation. Therefore constant flow rate and hours of operation may not correspond.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-08-2013

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 07 (GTU07)**  
**AREA TFE-HS**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 723

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-01-2013  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 19.8

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-2105</b>	<b>753</b>	<b>0.6</b>
Total:	<u><b>753</b></u>	<u><b>0.6</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>753</b></u>

6. Comments:

Facility secured 5/9 at 06:30 in preparation for monthly sample collection.  
Facility was restarted at 13:40.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-04-2013

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 07 (GTU07)**  
**AREA TFE-HS**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>31</u>														
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>			

Total monthly time facility operated (hours): 639

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-05-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>19.8</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-2105</b>	<b>556</b>	<b>0.6</b>
Total:	<u><b>556</b></u>	<u><b>0.6</b></u>


5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>556</b></u>

6. Comments:

Facility was shutdown 6/4 at 08:48 in preparation for monthly compliance sampling. Facility was restarted 6/5 at 07:00. Facility was shutdown 6/12 at 13:33 to troubleshoot W-2105 totalizer. Facility was restarted 6/13 at 13:53.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **07-15-2013**



# Self-Monitoring Report

## LLNL Portable Treatment Unit 9 (PTU9)

### AREA TFE-NW

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>30</u>	<u>31</u>															
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>		
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>		

Total monthly time facility operated (hours): 780

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-10-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.3</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1211	309,134	6.7
W-1409	69,717	1.5
Total:	<u>378,851</u>	<u>8.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>378,851</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-01-2013

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 9 (PTU9)**  
**AREA TFE-NW**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 756

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-07-2013  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 22.4

4. Wellfield Data:

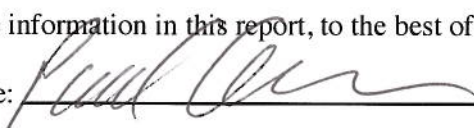
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1211	293,003	6.6
W-1409	66,635	1.5
Total:	<u>359,638</u>	<u>8.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>359,638</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-03-2013

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 9 (PTU9)**  
**AREA TFE-NW**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
            16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 682

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 06-04-2013  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 23

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1211	263,395	6.6
W-1409	60,186	1.5
Total:	<u>323,581</u>	<u>8.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>323,581</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-01-2013

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 04 (MTU04)**  
**AREA TFE-SE**

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>30</u>	<u>31</u>																	
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	06	07	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 681

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-02-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>25.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-359</b>	<b>339,910</b>	<b>8.3</b>
Total:	<u><b>339,910</b></u>	<u><b>8.3</b></u>


5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>339,910</b></u>

6. Comments:

Facility shutdown 4/24 at 16:05 hrs due to unplanned power outage. Facility was restarted 4/25 at 06:56.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-10-2013

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 04 (MTU04)**  
**AREA TFE-SE**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	19	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 668

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>05-01-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-359</b>	<b>332,634</b>	<b>8.3</b>
Total:	<u><b>332,634</b></u>	<u><b>8.3</b></u>


5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>332,634</b></u>

6. Comments:

Facility shutdown 5/18 due to power outage, and was restarted 5/20 at 07:05.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-03-2013



**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 04 (MTU04)**  
**AREA TFE-SE**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>31</u>														
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>			

Total monthly time facility operated (hours): 674

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-04-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-359	334,825	8.3
Total:	<u>334,825</u>	<u>8.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>334,825</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 07-02-2013

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 03 (MTU03)**  
**AREA TFE-SW**

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>30</u>	<u>31</u>																		
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>					
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>					

Total monthly time facility operated (hours): 747

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-09-2013</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>19.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1516	447,636	10.0
W-1518	22,840	0.5
W-1520	44,074	1.0
W-1522	0	0.0
Total:	<u>514,550</u>	<u>11.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>514,550</u>

6. Comments:

The facility was shut down at 15:07 on 4-24-13 and was restarted at 8:24 on 4-25-13 to complete SOP 3.2 on W-1522 and download information to computer. The facility was down for approximately 17.3 hrs.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kidd Date: 05-07-2013

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 03 (MTU03)**  
**AREA TFE-SW**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
            16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 738

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-08-2013  
Influent pH: 7.4  
Effluent pH: 7.5  
Effluent Temperature (°C): 19.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1516	441,745	10.0
W-1518	23,600	0.5
W-1520	45,286	1.0
W-1522	0	0.0
Total:	<u>510,631</u>	<u>11.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>510,631</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Fisher Date: 06-05-2013



**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 03 (MTU03)**  
**AREA TFE-SW**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
             16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 670

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 06-06-2013  
Influent pH: 7.5  
Effluent pH: 7.5  
Effluent Temperature (°C): 19.7

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1518	20,908	0.5
W-1520	41,083	1.0
W-1522	0	0.0
W-1516	399,846	10.0
Total:	<u>461,837</u>	<u>11.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>461,837</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Bill G. Kidd Date: 07-12-2013

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 05 (MTU05)**  
**AREA TFE-W**

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>30</u>	<u>31</u>																								
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>											
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>											

Total monthly time facility operated (hours): 765

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-09-2013</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.3</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-292</b>	<b>276,670</b>	<b>6.0</b>
<b>W-305</b>	<b>609,585</b>	<b>14.0</b>
Total:	<u><b>886,255</b></u>	<u><b>20.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>886,255</b></u>

6. Comments:

W-305 shut down for approximately 51.7 hrs. during the month due to low flow alarm.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kild Date: 05-07-2013

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 05 (MTU05)**  
**AREA TFE-W**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 739

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-08-2013  
Influent pH: 7.5  
Effluent pH: 7.5  
Effluent Temperature (°C): 20.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-292	270,024	6.0
W-305	603,741	14.0
Total:	<u>873,765</u>	<u>20.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>873,765</u>

6. Comments:

W-305 shut down at 13:51 on 5-1-13 due to low flow and was restarted at 10:19 on 5-2-13.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kild Date: 06-05-2013

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 05 (MTU05)**  
**AREA TFE-W**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
            **16** **17** **18** 19 20 21 22 23 24 **25** **26** **27** **28**

Total monthly time facility operated (hours): **513**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **06-06-2013**  
Influent pH: **7.5**  
Effluent pH: **7.5**  
Effluent Temperature (°C): **21.5**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-292</b>	<b>187,724</b>	<b>6.1</b>
<b>W-305</b>	<b>432,667</b>	<b>14.0</b>
Total:	<u><b>620,391</b></u>	<u><b>20.1</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>620,391</b></u>

6. Comments:

The facility shut down at 21:18 on 6-18-13 due to air stripper high water level. EE repair work was performed which included the replacement of the discharge pump. The facility was restarted at 10:00 on 6-25-13.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Billy K. Hill* Date: **07-12-2013**



# Self-Monitoring Report

## LLNL Vapor Extraction System 16 (VES16)

### AREA VTFE-ELM

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

March	<u><b>30</b></u>	<u><b>31</b></u>																								
April	<u><b>01</b></u>	<u><b>02</b></u>	<u><b>03</b></u>	<u><b>04</b></u>	<u><b>05</b></u>	<u><b>06</b></u>	<u><b>07</b></u>	<u><b>08</b></u>	<u><b>09</b></u>	<u><b>10</b></u>	<u><b>11</b></u>	<u><b>12</b></u>	<u><b>13</b></u>	<u><b>14</b></u>	<u><b>15</b></u>											
	<u><b>16</b></u>	<u><b>17</b></u>	<u><b>18</b></u>	<u><b>19</b></u>	<u><b>20</b></u>	<u><b>21</b></u>	<u><b>22</b></u>	<u><b>23</b></u>	<u><b>24</b></u>	<u><b>25</b></u>	<u><b>26</b></u>	<u><b>27</b></u>	<u><b>28</b></u>	<u><b>29</b></u>	<u><b>30</b></u>											

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1903	66,872	1.6	-18.2	66	756
W-1909	0	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-001	0	0.0	0	0	0
W-543-003	1,062,438	23.3	-1.5	66	756
W-543-1908	0	0.0	0	0	0
Total:	<u>1,129,310</u>	<u>25.0</u>			

4. Comments:

Facility shutdown 4/11 at 03:22 due to W-2305 water coil high temperature alarm. Facility was restarted at 08:34 hrs. Facility was secured 4/18 at 09:25 to replace SSR module at W-2305. Facility was restarted at 15:00 hrs.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-08-2013

# Self-Monitoring Report

## LLNL Vapor Extraction System 16 (VES16)

### AREA VTFE-ELM

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1903	63,300	1.4	-16.79	68	719
W-1909	0	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-001	26	0.0	0	0	0
W-543-003	1,000,706	22.4	-1.6	68	719
W-543-1908	12	0.0	0	0	0
Total:	<u>1,064,044</u>	<u>23.8</u>			

4. Comments:

Quarterly vapor samples collected 5/14/13.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 06-04-2013

# Self-Monitoring Report

## LLNL Vapor Extraction System 16 (VES16)

### AREA VTFE-ELM

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treatment facility operated


May	<u>31</u>														
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>			

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1903	53,236	1.1	-14.62	80	676
W-1909	0	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-001	0	0.0	0	0	0
W-543-003	997,278	24.1	-1.5	80	676
W-543-1908	0	0.0	0	0	0
Total:	<u>1,050,514</u>	<u>25.2</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-02-2013



# Self-Monitoring Report

## LLNL Vapor Extraction System 12 (VES12)

### AREA VTFE-HS

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

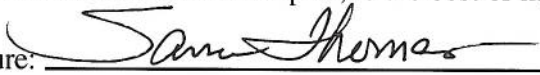
March	<u>30</u>	<u>31</u>																				
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>							
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>							

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2105	97,881	2.1	-14.96	58	780
W-ETS-2008A	0	0.0	0	0	0
W-ETS-2008B	795,961	18.0	-15.62	58	780
W-ETS-2009	0	0.0	0	0	0
W-ETS-2010A	0	0.0	0	0	0
W-ETS-2010B	0	0.0	0	0	0
Total:	<u>893,842</u>	<u>20.1</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-09-2013

# Self-Monitoring Report

## LLNL Vapor Extraction System 12 (VES12)

### AREA VTFE-HS

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
             16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-2105	93,576	2.1	-16.45	65	730
W-ETS-2008A	9	0.0	0	0	0
W-ETS-2008B	690,274	15.5	-15.87	65	730
W-ETS-2009	24	0.0	0	0	0
W-ETS-2010A	6	0.0	0	0	0
W-ETS-2010B	14	0.0	0	0	0
Total:	<u>783,903</u>	<u>17.6</u>			

4. Comments:

Quarterly vapor samples collected 5/21/13.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 06-03-2013

# Self-Monitoring Report

## LLNL Vapor Extraction System 12 (VES12)

### AREA VTFE-HS

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

May	<u>31</u>														
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>			

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2105	83,395	2.0	-14.79	70	676
W-ETS-2008A	0	0.0	0	0	0
W-ETS-2008B	627,927	14.7	-14.31	70	676
W-ETS-2009	0	0.0	0	0	0
W-ETS-2010A	0	0.0	0	0	0
W-ETS-2010B	0	0.0	0	0	0
Total:	<u>711,322</u>	<u>16.7</u>			

4. Comments:

Facility and extraction well hours of operation entered for reporting month have been adjusted due to malfunction of facility clock.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 07-16-2013

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 01 (GTU01)**  
**AREA TFG-1**

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>30</u>	<u>31</u>																											
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>														
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>														

Total monthly time facility operated (hours): 773

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 03-30-2013

Influent pH: 7.0

Effluent pH: 7.0

Effluent Temperature (°C): 18.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1111	236,604	5.0
Total:	<u>236,604</u>	<u>5.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>236,604</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-01-2013

**Land Observation Report date:**  
**TFG-ASW - Arroyo Seco**

1. Reporting Period: Business Month April Year 2013

2. Date compliance sampling performed 04-10-2013

3. Weather Conditions:

Average air tempertaure (°C):	<u>14.66</u>
6-day total precipitation (in):	<u>0.37</u>
Average wind speed/direction (mph):	<u>7/ SW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-03-2013

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 01 (GTU01)**  
**AREA TFG-1**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
            16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 697

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-02-2013  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 18.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1111	215,086	5.0
Total:	<u>215,086</u>	<u>5.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>215,086</u>

6. Comments:

System secure from 5/21/13 to 5/23/13 for carbon change.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-03-2013



**Land Observation Report date:  
TFG-ASW - Arroyo Seco**

1. Reporting Period: Business Month May Year 2013

2. Date compliance sampling performed 05-02-2013

3. Weather Conditions:

Average air tempertaure (°C):	<u>20.13</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>5/ SSE</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-01-2013



**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 01 (GTU01)**  
**AREA TFG-1**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
             **16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): **669**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **06-04-2013**  
Influent pH: **7.0**  
Effluent pH: **7.0**  
Effluent Temperature (°C): **22.6**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1111</b>	<b>209,741</b>	<b>5.2</b>
Total:	<u><b>209,741</b></u>	<u><b>5.2</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Seco</b></u>	<u><b>TFG-ASW</b></u>	<u><b>209,741</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **07-16-2013**

**Land Observation Report date:**  
**TFG-ASW - Arroyo Seco**

1. Reporting Period: Business Month June Year 2013

2. Date compliance sampling performed 06-04-2013

3. Weather Conditions:

Average air tempertaure (°C):	<u>18.7</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>5/ SW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-16-2013

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 02 (MTU02)**  
**AREA TFG-N**

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>30</u>	<u>31</u>															
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>		
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>		

Total monthly time facility operated (hours): 779

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-10-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>20.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1806</b>	<b>85,734</b>	<b>1.9</b>
<b>W-1807</b>	<b>189,586</b>	<b>4.1</b>
Total:	<u><b>275,320</b></u>	<u><b>5.9</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>275,320</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-01-2013

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 02 (MTU02)**  
**AREA TFG-N**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 747

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-02-2013  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 20

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1806	89,302	1.9
W-1807	180,751	4.1
Total:	<u>270,053</u>	<u>5.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>270,053</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-03-2013

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 02 (MTU02)**  
**AREA TFG-N**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>		

Total monthly time facility operated (hours): 678

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-04-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.4</u>

4. Wellfield Data:

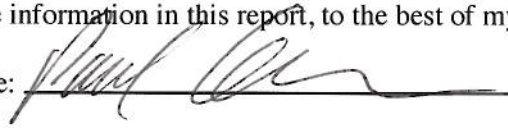
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1806	93,283	2.3
W-1807	167,580	4.2
Total:	<u>260,863</u>	<u>6.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>260,863</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-01-2013

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 5 (PTU5)**  
**AREA TF406**

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>30</u>	<u>31</u>																								
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>											
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>											

Total monthly time facility operated (hours): 776

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-09-2013</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.6</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1309	116	4.5
W-1310	459,147	10.0
Total:	<u>459,263</u>	<u>14.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>459,263</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Fidal Date: 05-07-2013



**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 5 (PTU5)**  
**AREA TF406**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
            16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 745

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-08-2013  
Influent pH: 7.5  
Effluent pH: 7.5  
Effluent Temperature (°C): 21.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1309	0	0.0
W-1310	436,611	10.0
Total:	<u>436,611</u>	<u>10.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>436,611</u>

6. Comments:  
NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Field Date: 06-05-2013



**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 5 (PTU5)**  
**AREA TF406**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
             16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 681

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 06-06-2013  
Influent pH: 7.5  
Effluent pH: 7.5  
Effluent Temperature (°C): 22.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1309	0	0.0
W-1310	398,781	10.0
Total:	<u>398,781</u>	<u>10.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>398,781</u>

6. Comments:

The facility was shut down at 10:28 on 6-28-13 for the evaluation of the effect that PTU5 has on W-1516 at TFE-SW.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kidil Date: 07-16-2013

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 03 (GTU03)**  
**AREA TF406-NW**

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>30</u>	<u>31</u>													
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	19	20	21	22	23	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 616

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-10-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>26.3</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1801	156,968	4.4
Total:	<u>156,968</u>	<u>4.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>156,968</u>

6. Comments:

System secure from 4/18/13 to 4/24/13 for W-1801 bio-fouling treatment.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-01-2013

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 03 (GTU03)**  
**AREA TF406-NW**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 664

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-07-2013  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 26.5

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1801	264,582	7.2
Total:	<u>264,582</u>	<u>7.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>264,582</u>

6. Comments:

System secure from 5/10/13 to 5/13/13 for HSU testing.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-03-2013

# Self-Monitoring Report

## LLNL GAC Treatment Unit 03 (GTU03)

### AREA TF406-NW

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	22	23	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>		

Total monthly time facility operated (hours): 598

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-05-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>23.6</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1801	227,383	6.3
Total:	<u>227,383</u>	<u>6.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>227,383</u>

6. Comments:

System secure from 6/21/13 to 6/24/13 for planned power outage.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-01-2013

**Self-Monitoring Report**  
**LLNL Solar Treatment Unit 09 (STU09)**  
**AREA TF518-N**

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	29	30	31														
April	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15		
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1410</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>0</b></u>	<u><b>0.0</b></u>

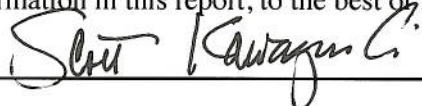
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>0</b></u>

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **05-01-2013**



**Self-Monitoring Report**  
**LLNL Solar Treatment Unit 09 (STU09)**  
**AREA TF518-N**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1410</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>0</b></u>	<u><b>0.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>0</b></u>

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Lawryns Date: 05-31-2013

**Self-Monitoring Report**  
**LLNL Solar Treatment Unit 09 (STU09)**  
**AREA TF518-N**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May	31														
June	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26				

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1410</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>0</b></u>	<u><b>0.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<b><u>Arroyo Las Positas</u></b>	<b><u>TFC-R003</u></b>	<b><u>0</u></b>

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **07-01-2013**



**Self-Monitoring Report**  
**LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)**  
**AREA TF518-PZ**

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>30</u>	<u>31</u>																												
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 768

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1615</b>	<b>109</b>	<b>0.0</b>
<b>W-518-1913</b>	<b>0</b>	<b>0.0</b>
<b>W-518-1914</b>	<b>0</b>	<b>0.0</b>
<b>W-518-1915</b>	<b>75</b>	<b>0.0</b>
<b>SVB-518-201</b>	<b>0</b>	<b>0.0</b>
<b>SVB-518-204</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>184</b></u>	<u><b>0.0</b></u>

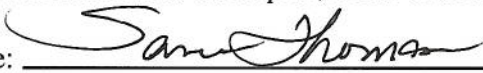
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>West Perimeter Drainage Channel</b></u>	<u><b>TFB-R002</b></u>	<u><b>184</b></u>

6. Comments:

Groundwater from this facility is transferred to and treated at TFB Main.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **05-08-2013**

**Self-Monitoring Report**  
**LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)**  
**AREA TF518-PZ**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
          16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 702

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1615</b>	<b>84</b>	<b>0.0</b>
<b>W-518-1913</b>	<b>0</b>	<b>0.0</b>
<b>W-518-1914</b>	<b>0</b>	<b>0.0</b>
<b>W-518-1915</b>	<b>42</b>	<b>0.0</b>
<b>SVB-518-201</b>	<b>0</b>	<b>0.0</b>
<b>SVB-518-204</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>126</b></u>	<u><b>0.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>West Perimeter Drainage Channel</b></u>	<u><b>TFB-R002</b></u>	<u><b>126</b></u>

6. Comments:

Facility secured 5/1 at 13:50 in conjunction with VES 19 to replace carbon filters.  
Facility was restarted 5/2 at 08:08. Groundwater from this facility is transferred to and treated at TFB Main.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **06-03-2013**

**Self-Monitoring Report**  
**LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)**  
**AREA TF518-PZ**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May	<u>31</u>														
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	22	23	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>		

Total monthly time facility operated (hours): 628

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1615</b>	<b>64</b>	<b>0.0</b>
<b>W-518-1913</b>	<b>0</b>	<b>0.0</b>
<b>W-518-1914</b>	<b>0</b>	<b>0.0</b>
<b>W-518-1915</b>	<b>27</b>	<b>0.0</b>
<b>SVB-518-201</b>	<b>0</b>	<b>0.0</b>
<b>SVB-518-204</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>91</b></u>	<u><b>0.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>West Perimeter Drainage Channel</b></u>	<u><b>TFB-R002</b></u>	<u><b>91</b></u>

6. Comments:

Facility was shutdown 6/21 at 13:30 in advance of planned power outage. Facility was restarted 6/24 at 08:10. Groundwater from this facility is transferred to and treated at TFB Main.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **07-02-2013**

**Self-Monitoring Report**  
**LLNL Catalytic Reductive Dehalogenation 1 (CRD1)**  
**AREA TF5475-1**

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	30	31															
April	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15		
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1302-2</b>	<b>0</b>	<b>0.0</b>
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>CRD-1 injection</b></u>	<u><b>W-1302-1</b></u>	<u><b>0</b></u>

6. Comments:

The treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kidd Date: 05-07-2013



**Self-Monitoring Report**  
**LLNL Catalytic Reductive Dehalogenation 1 (CRD1)**  
**AREA TF5475-1**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1302-2	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-1 injection</u>	<u>W-1302-1</u>	<u>0</u>

6. Comments:

The treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kidd Date: 06-05-2013

**Self-Monitoring Report**  
**LLNL Catalytic Reductive Dehalogenation 1 (CRD1)**  
**AREA TF5475-1**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28		

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1302-2	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-1 injection</u>	<u>W-1302-1</u>	<u>0</u>

6. Comments:

The treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kuhl Date: 07-12-2013



**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 09 (GTU09)**  
**AREA TF5475-2**

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	<u>29</u>	<u>30</u>	<u>31</u>																
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 797

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-03-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>18</u>

4. Wellfield Data:

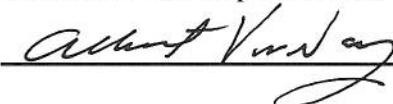
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1108	43,487	0.9
W-1415	0	0.0
Total:	<u>43,487</u>	<u>0.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>43,487</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-15-2013

# Self-Monitoring Report

## LLNL GAC Treatment Unit 09 (GTU09)

### AREA TF5475-2

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
             16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 742

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-03-2013  
 Influent pH: 7.0  
 Effluent pH: 7.0  
 Effluent Temperature (°C): 19.2

4. Wellfield Data:


<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1108	33,266	0.7
W-1415	0	0.0
Total:	<u>33,266</u>	<u>0.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>33,266</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-03-2013

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 09 (GTU09)**  
**AREA TF5475-2**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
**16** **17** 18 19 **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): **613**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **06-05-2013**  
Influent pH: **7.0**  
Effluent pH: **7.0**  
Effluent Temperature (°C): **19.6**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1108</b>	<b>30,995</b>	<b>0.7</b>
<b>W-1415</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>30,995</b></u>	<u><b>0.7</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>30,995</b></u>

6. Comments:

Facility was down for VFD upgrades to well 1108 on June 18 and 19, 2013.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **07-09-2013**

**Self-Monitoring Report**  
**LLNL Catalytic Reductive Dehalogenation 2 (CRD2)**  
**AREA TF5475-3**

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

March	30	31													
April	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1604</b>	<b>0</b>	<b>0.0</b>
<b>W-1605</b>	<b>0</b>	<b>0.0</b>
<b>W-1608</b>	<b>0</b>	<b>0.0</b>
<b>W-1609</b>	<b>0</b>	<b>0.0</b>
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>CRD-2 injection</b></u>	<u><b>W-1610</b></u>	<u><b>0</b></u>

6. Comments:

The treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kral Date: 05-07-2013

**Self-Monitoring Report**  
**LLNL Catalytic Reductive Dehalogenation 2 (CRD2)**  
**AREA TF5475-3**

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

May	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1604	0	0.0
W-1605	0	0.0
W-1608	0	0.0
W-1609	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-2 injection</u>	<u>W-1610</u>	<u>0</u>

6. Comments:

The treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kidd Date: 06-05-2013



**Self-Monitoring Report**  
**LLNL Catalytic Reductive Dehalogenation 2 (CRD2)**  
**AREA TF5475-3**

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treated ground water was discharged

June	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28		

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1604</b>	<b>0</b>	<b>0.0</b>
<b>W-1605</b>	<b>0</b>	<b>0.0</b>
<b>W-1608</b>	<b>0</b>	<b>0.0</b>
<b>W-1609</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>0</b></u>	<u><b>0.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>CRD-2 injection</b></u>	<u><b>W-1610</b></u>	<u><b>0</b></u>

6. Comments:

The treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kichil Date: 07-12-2013



# Self-Monitoring Report

## LLNL Vapor Extraction System 08 (VES08)

### AREA VTF406-HS

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

March	<u>30</u>	<u>31</u>																				
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>							
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>							


3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-217	703,198	15.6	-3.06	73	768
W-514-2007A	0	0.0	0	0	0
W-514-2007B	503,736	11.0	-3.26	73	768
Total:	<u>1,206,934</u>	<u>26.6</u>			

4. Comments:

End month volumes for extraction wells were calculated from individual flow measurements, and not derived from facility totalizer values. Facility and wellfield monthly hours of operation entered on this report were acquired from data logged on TFRT due to malfunction of facility clock.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-13-2013

# Self-Monitoring Report

## LLNL Vapor Extraction System 08 (VES08)

### AREA VTF406-HS

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
           16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

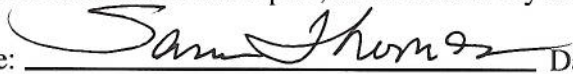
3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-217	613,284	15.7	-2.6	67	672
W-514-2007A	0	0.0	0	0	0
W-514-2007B	428,156	10.3	-2.98	67	672
Total:	<u>1,041,440</u>	<u>26.0</u>			

4. Comments:

Facility shutdown 5/18 at 07:45, the result of an unplanned power outage. Facility was restarted 5/20 at 07:45. End month volumes for extraction wells were calculated from individual flow measurements, and not derived from facility totalizer values.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-03-2013

# Self-Monitoring Report

## LLNL Vapor Extraction System 08 (VES08)

### AREA VTF406-HS

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

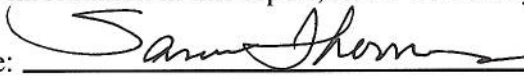
May	<u><b>31</b></u>														
June	<u><b>01</b></u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>			

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-217	628,055	15.4	-2.47	70	674
W-514-2007A	0	0.0	0	0	0
W-514-2007B	407,334	9.9	-2.83	70	674
Total:	<u>1,035,389</u>	<u>25.3</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-08-2013

# Self-Monitoring Report

## LLNL Vapor Extraction System 05 (VES05)

### AREA VTF511

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

March	<u>30</u>	<u>31</u>																	
April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	06	07	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2204	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
W-2206	0	0.0	0	0	0
W-2207A	0	0.0	0	0	0
W-2207B	355,958	6.5	-4.2	60	688
W-2208A	0	0.0	0	0	0
W-2208B	348,242	8.0	-3.6	60	688
Total:	<u>704,200</u>	<u>14.5</u>			

4. Comments:

Facility secured 4/5 at 12:40 in advance of planned power outage. Facility was restarted 4/8 at 09:35. Facility shutdown 4/24 at 16:05 due to unplanned power outage. Facility was restarted 4/25 at 06:45.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-09-2013

# Self-Monitoring Report

## LLNL Vapor Extraction System 05 (VES05)

### AREA VTF511

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

May      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30


3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2204	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
W-2206	0	0.0	0	0	0
W-2207A	157	0.0	0	0	0
W-2207B	322,956	10.4	-4.5	67	535
W-2208A	208	0.0	0	0	0
W-2208B	285,909	8.9	-3.9	67	535
Total:	<u>609,230</u>	<u>19.3</u>			

4. Comments:

Facility secured 5/1 at 14:55 to remove and replace carbon filters due to the discovery of concentrations exceeding permit conditions at the inlet to the last carbon filter. Carbon Filters 039 and 040 were removed from service, and filters 043 and 044 installed. Facility hours: 25798. Facility was restarted 5/7 at 10:50. Facility shutdown 5/18 at 07:30, due to a scheduled a power outage. Facility was restarted 5/20 at 07:15. Quarterly vapor samples were collected from operating and idle wells 5/23/13.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-05-2013



# Self-Monitoring Report

## LLNL Vapor Extraction System 05 (VES05)

### AREA VTF511

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

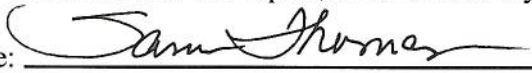
May	<u>31</u>														
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>			

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2204	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
W-2206	0	0.0	0	0	0
W-2207A	0	0.0	0	0	0
W-2207B	416,062	10.0	-4.4	82	669
W-2208A	0	0.0	0	0	0
W-2208B	357,701	8.6	-4.1	82	669
Total:	<u>773,763</u>	<u>18.7</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-02-2013



# Self-Monitoring Report

## LLNL Vapor Extraction System 19 (VES19)

### AREA VTF518-PZ

1. Reporting Period: Business Month April Week: 1 Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

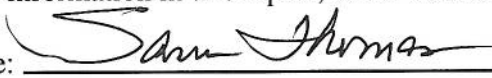
March      **30** **31**  
 April      **01** **02** **03** **04** **05**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-1615</b>	<b>40,349</b>	<b>4.0</b>	<b>-18.5</b>	<b>52</b>	<b>168</b>
<b>W-518-1913</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1914</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1915</b>	<b>7,061</b>	<b>0.7</b>	<b>-21.5</b>	<b>52</b>	<b>168</b>
<b>SVB-518-201</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>SVB-518-204</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
 Total:	 <u><b>47,410</b></u>	 <u><b>4.7</b></u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **05-08-2013**

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month April **Week: 2** Year **2013**

2. Dates (in **bold** and underline ) treatment facility operated

April      **06** **07** **08** **09** **10** **11** **12**

3. Wellfield Data:

<u>Source</u>	<u>Weekly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
<b>W-1615</b>	<b>40,464</b>	<b>4.0</b>	<b>-18.5</b>	<b>52</b>	<b>169</b>
<b>W-518-1913</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1914</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1915</b>	<b>7,081</b>	<b>0.7</b>	<b>-21.3</b>	<b>52</b>	<b>169</b>
<b>SVB-518-201</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>SVB-518-204</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
 Total:	 <b><u>47,545</u></b>	 <b><u>4.7</u></b>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **05-08-2013**

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month April **Week: 3** Year **2013**

2. Dates (in **bold** and underline ) treatment facility operated

April **13** **14** **15** **16** **17** **18** **19**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-1615</b>	<b>41,107</b>	<b>4.1</b>	<b>-18.2</b>	<b>51</b>	<b>167</b>
<b>W-518-1913</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1914</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1915</b>	<b>8,021</b>	<b>0.8</b>	<b>-21</b>	<b>51</b>	<b>167</b>
<b>SVB-518-201</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>SVB-518-204</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total:	<b><u>49,128</u></b>	<b><u>4.9</u></b>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **05-08-2013**

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month April **Week: 4** Year **2013**

2. Dates (in **bold** and underline ) treatment facility operated

April      **20** **21** **22** **23** **24** **25** **26**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	41,367	4.1	-18.7	50	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	7,063	0.7	-21.5	50	168
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<b><u>48,430</u></b>	<b><u>4.8</u></b>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **05-08-2013**

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month May Week: 1 Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

April	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>
May	<u>01</u>	<u>02</u>	<u>03</u>	

3. Wellfield Data:

<u>Source</u>	<u>Weekly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1615	36,811	4.1	-18.5	50	150
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	6,285	0.7	-21.5	50	150
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>43,096</u>	<u>4.8</u>			

4. Comments:

Secured VES 19 5/1/13 at 13:50 hrs due to the discovery of concentrations exceeding permit conditions at the inlet to the last carbon filter. Carbon Filters 005 and 006 were removed and filters 009 and 010 installed. Facility was restarted 5/2/13 at 08:08 hrs. Facility hours: 56440.65

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 06-04-2013

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month May **Week: 2** Year **2013**

2. Dates (in **bold** and underline ) treatment facility operated

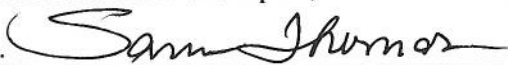
May **04** **05** **06** **07** **08** **09** **10**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-1615</b>	<b>39,525</b>	<b>3.9</b>	<b>-18.9</b>	<b>50</b>	<b>169</b>
<b>W-518-1913</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1914</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1915</b>	<b>8,108</b>	<b>0.8</b>	<b>-21.5</b>	<b>50</b>	<b>169</b>
<b>SVB-518-201</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>SVB-518-204</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total:	<u><b>47,633</b></u>	<u><b>4.7</b></u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **06-04-2013**



**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month May **Week: 3** Year **2013**

2. Dates (in **bold** and underline ) treatment facility operated

May **11** **12** **13** **14** **15** **16** **17**

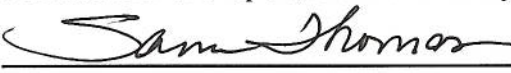
3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	39,022	3.9	-18.7	54	167
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	8,004	0.8	-21.4	54	167
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>47,026</u>	<u>4.7</u>			

4. Comments:

Quarterly vapor samples collected from operating and idle extraction wells 5/15/13

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **06-04-2013**

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month May **Week: 4** Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

May      **18** **19** **20** **21** **22** **23** **24**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-1615</b>	<b>39,335</b>	<b>3.9</b>	<b>-18.5</b>	<b>50</b>	<b>168</b>
<b>W-518-1913</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1914</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1915</b>	<b>8,069</b>	<b>0.8</b>	<b>-21.4</b>	<b>50</b>	<b>168</b>
<b>SVB-518-201</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>SVB-518-204</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total:	<u><b>47,404</b></u>	<u><b>4.7</b></u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **06-04-2013**

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month May **Week: 5** Year **2013**

2. Dates (in **bold** and underline ) treatment facility operated

May **25** **26** **27** **28** **29** **30**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	33,689	3.9	-18.7	50	144
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	6,911	0.8	-21.2	50	144
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u><b>40,600</b></u>	<u><b>4.7</b></u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **06-04-2013**

# Self-Monitoring Report

## LLNL Vapor Extraction System 19 (VES19)

### AREA VTF518-PZ

1. Reporting Period: Business Month June Week: 1 Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

May	<u><b>31</b></u>
June	<u><b>01 02 03 04 05 06 07</b></u>

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	44,916	3.9	-18.5	54	192
W-518-1913	0	0.0	0	0	192
W-518-1914	0	0.0	0	0	192
W-518-1915	10,365	0.9	-21	54	192
SVB-518-201	0	0.0	0	0	192
SVB-518-204	0	0.0	0	0	192
Total:					
	<u>55,281</u>	<u>4.8</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-02-2013

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month June **Week: 2** Year **2013**

2. Dates (in **bold** and underline ) treatment facility operated

June        **08** **09** **10** **11** **12** **13** **14**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	39,324	3.9	-18	69	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	9,075	0.9	-21.3	69	168
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<b><u>48,399</u></b>	<b><u>4.8</u></b>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: **07-02-2013**

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month June Week: 3 Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

June 15 16 17 18 19 20 21

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	40,435	4.0	-18	58	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	9,098	0.9	-20.3	58	168
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>49,533</u>	<u>4.9</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 07-02-2013



**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month June Week: 4 Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

June            22 23 **24** **25** **26** **27** **28**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	22,800	3.8	-18.5	72	100
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	5,400	0.9	-21.2	72	100
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<b><u>28,200</u></b>	<b><u>4.7</u></b>			

4. Comments:

Facility shutdown 6/21 at 13:30 in advance of planned power outage. Facility was restarted 6/24 at 08:10.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: **07-02-2013**

# Self-Monitoring Report

## LLNL Vapor Extraction System 01 (VES01)

### AREA VTF5475

1. Reporting Period: Business Month April Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

March	30	31																	
April	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15				
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-ETS-507</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-1605</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-1608</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2211</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2212</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>SVI-ETS-504</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2303</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2302</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total:</b>	<b><u>0</u></b>	<b><u>0.0</u></b>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<b><u>VTF5475 Vapor Injection Well</u></b>	<b><u>SVI-ETS-505</u></b>	<b><u>0</u></b>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Field Date: **05-07-2013**

# Self-Monitoring Report

## LLNL Vapor Extraction System 01 (VES01)

### AREA VTF5475

1. Reporting Period: Business Month May Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

May	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-ETS-507	0	0.0	0	0	0
W-1605	0	0.0	0	0	0
W-1608	0	0.0	0	0	0
W-2211	0	0.0	0	0	0
W-2212	0	0.0	0	0	0
SVI-ETS-504	0	0.0	0	0	0
W-2303	0	0.0	0	0	0
W-2302	0	0.0	0	0	0
<hr/>					
Total:	<u>0</u>	<u>0.0</u>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>VTF5475 Vapor Injection Well</u>	<u>SVI-ETS-505</u>	<u>0</u>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kidd Date: 06-05-2013

# Self-Monitoring Report

## LLNL Vapor Extraction System 01 (VES01)

### AREA VTF5475

1. Reporting Period: Business Month June Year 2013

2. Dates (in **bold** and underline ) treatment facility operated

June	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28		

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1605	0	0.0	0	0	0
W-1608	0	0.0	0	0	0
W-2211	0	0.0	0	0	0
W-2212	0	0.0	0	0	0
W-2303	0	0.0	0	0	0
W-2302	0	0.0	0	0	0
SVI-ETS-504	0	0.0	0	0	0
W-ETS-507	0	0.0	0	0	0
<hr/>					
Total:	<u>0</u>	<u>0.0</u>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>VTF5475 Vapor Injection Well</u>	<u>SVI-ETS-505</u>	<u>0</u>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kidd Date: 07-12-2013

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## **Attachment C**

### **Figures**

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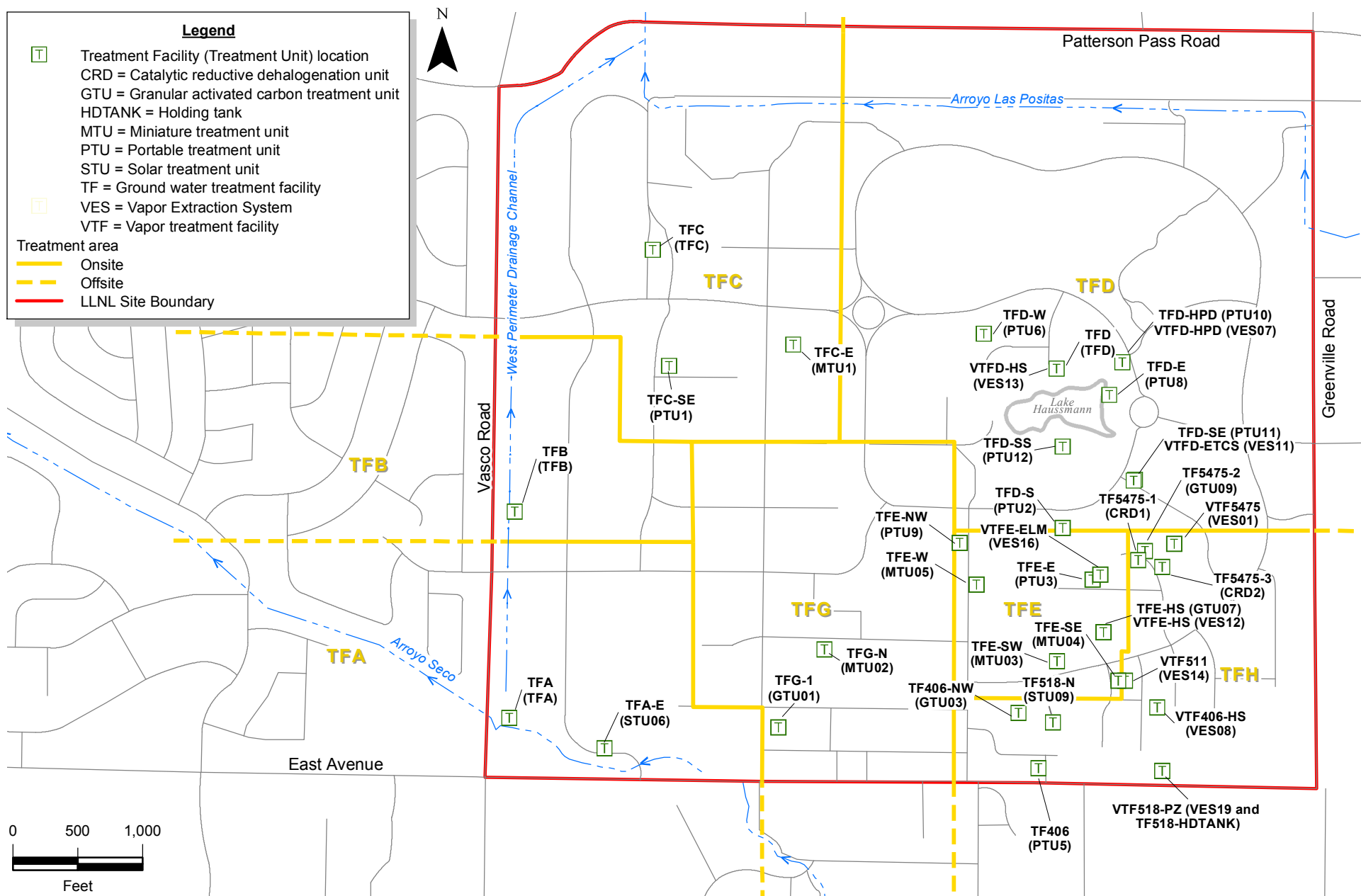


Figure 1. Livermore Site treatment areas and treatment facility locations.



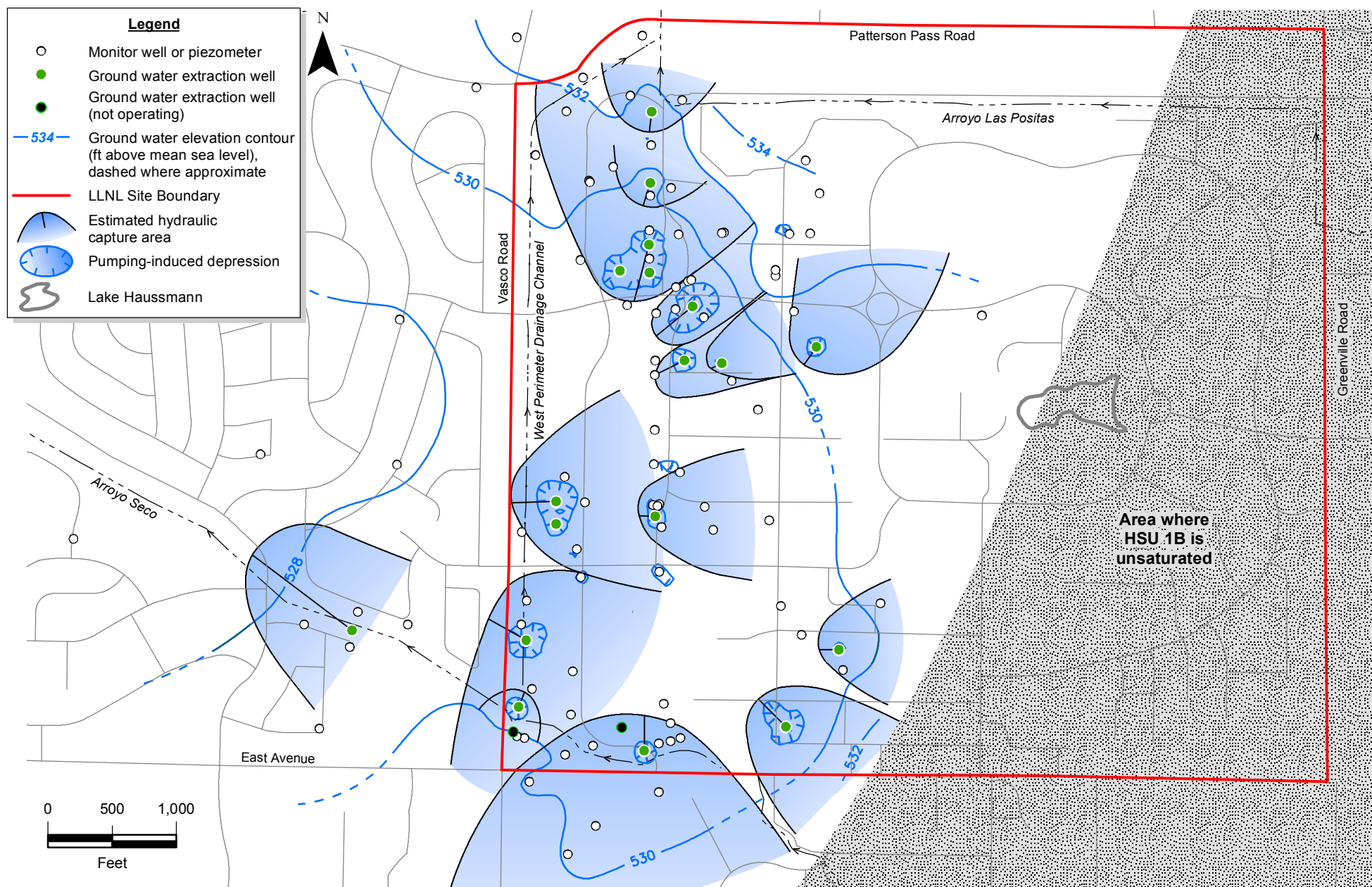


Figure 2. Ground water elevation contour map based on 108 wells completed within HSU-1B showing estimated hydraulic capture areas, LLNL and vicinity, second quarter 2013.

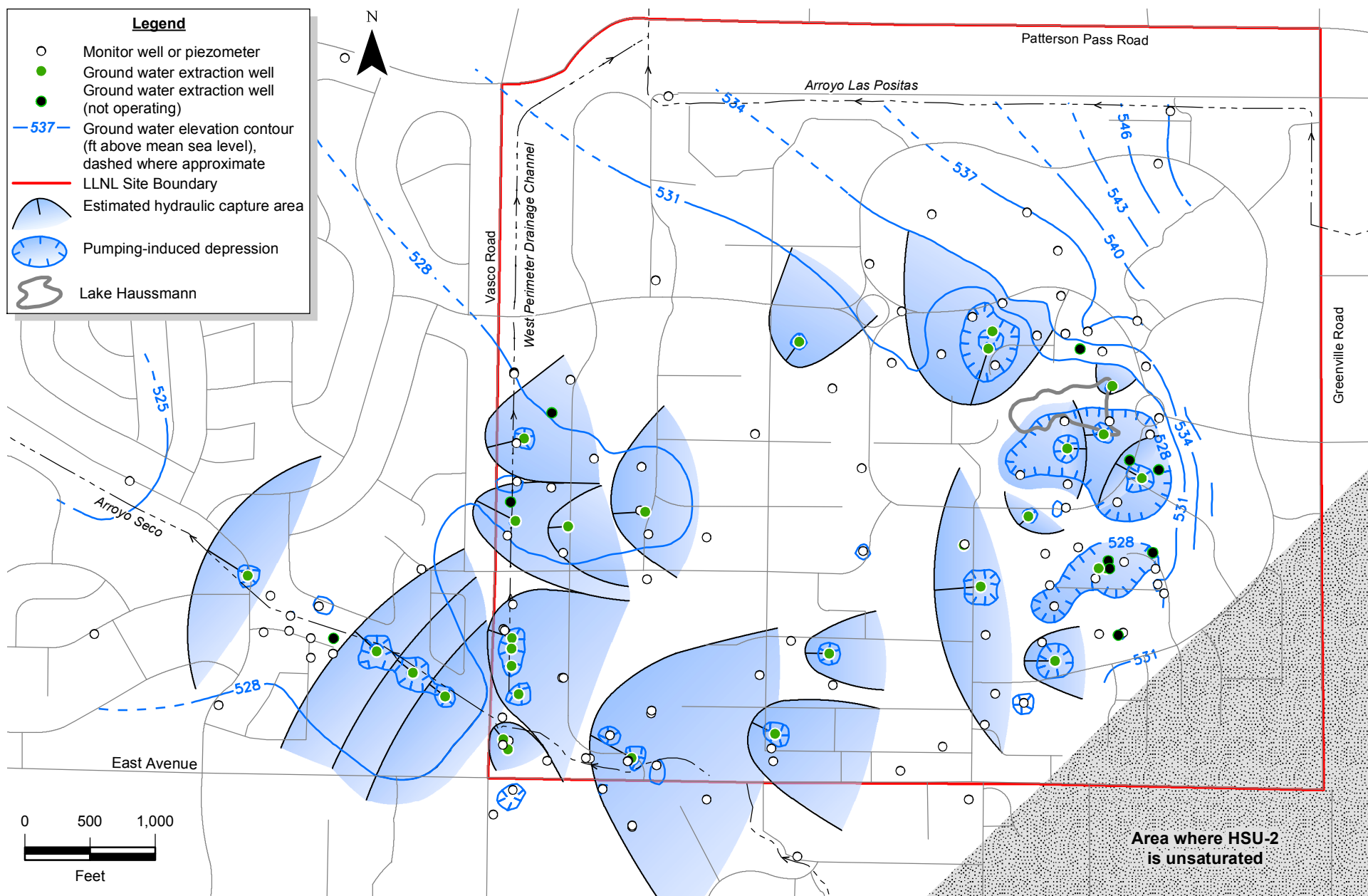
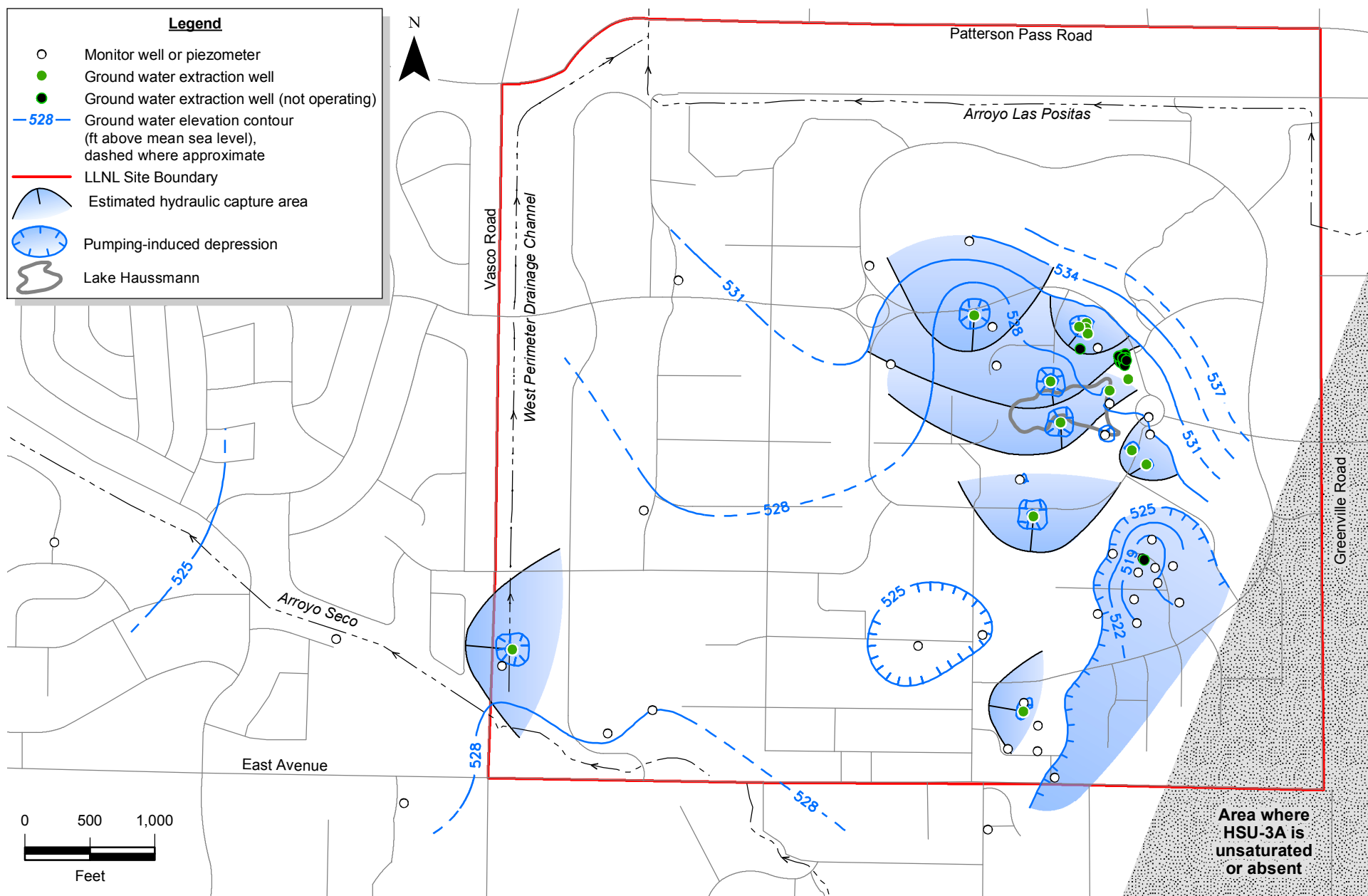


Figure 3. Ground water elevation contour map based on 152 wells completed within HSU-2 showing estimated hydraulic capture areas, LLNL and vicinity, second quarter 2013.



**Figure 4. Ground water elevation contour map based on 65 wells completed within HSU-3A showing estimated hydraulic capture areas, LLNL and vicinity, second quarter 2013.**

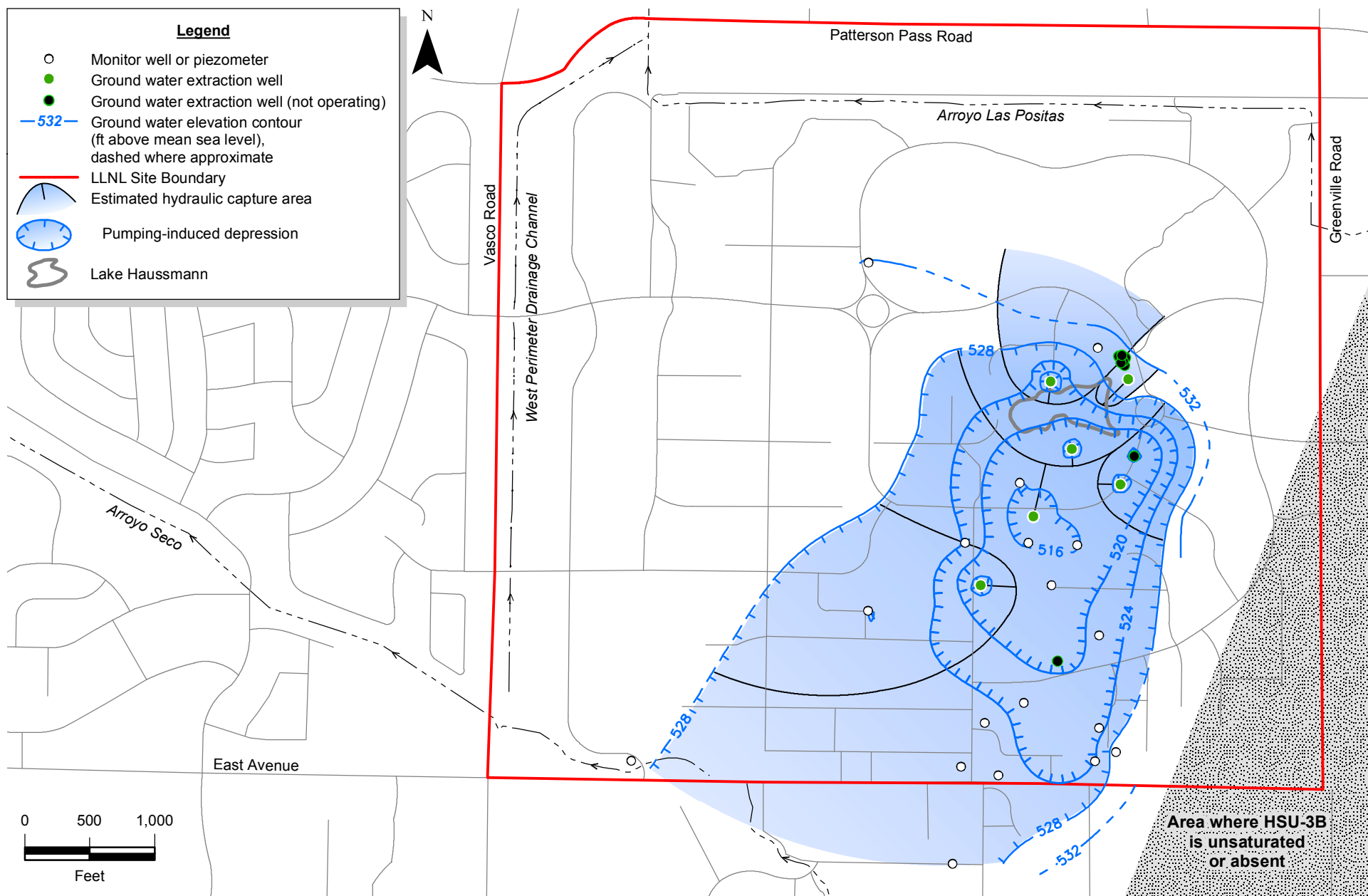


Figure 5. Ground water elevation contour map based on 28 wells completed within HSU-3B showing estimated hydraulic capture areas, LLNL and vicinity, second quarter 2013.

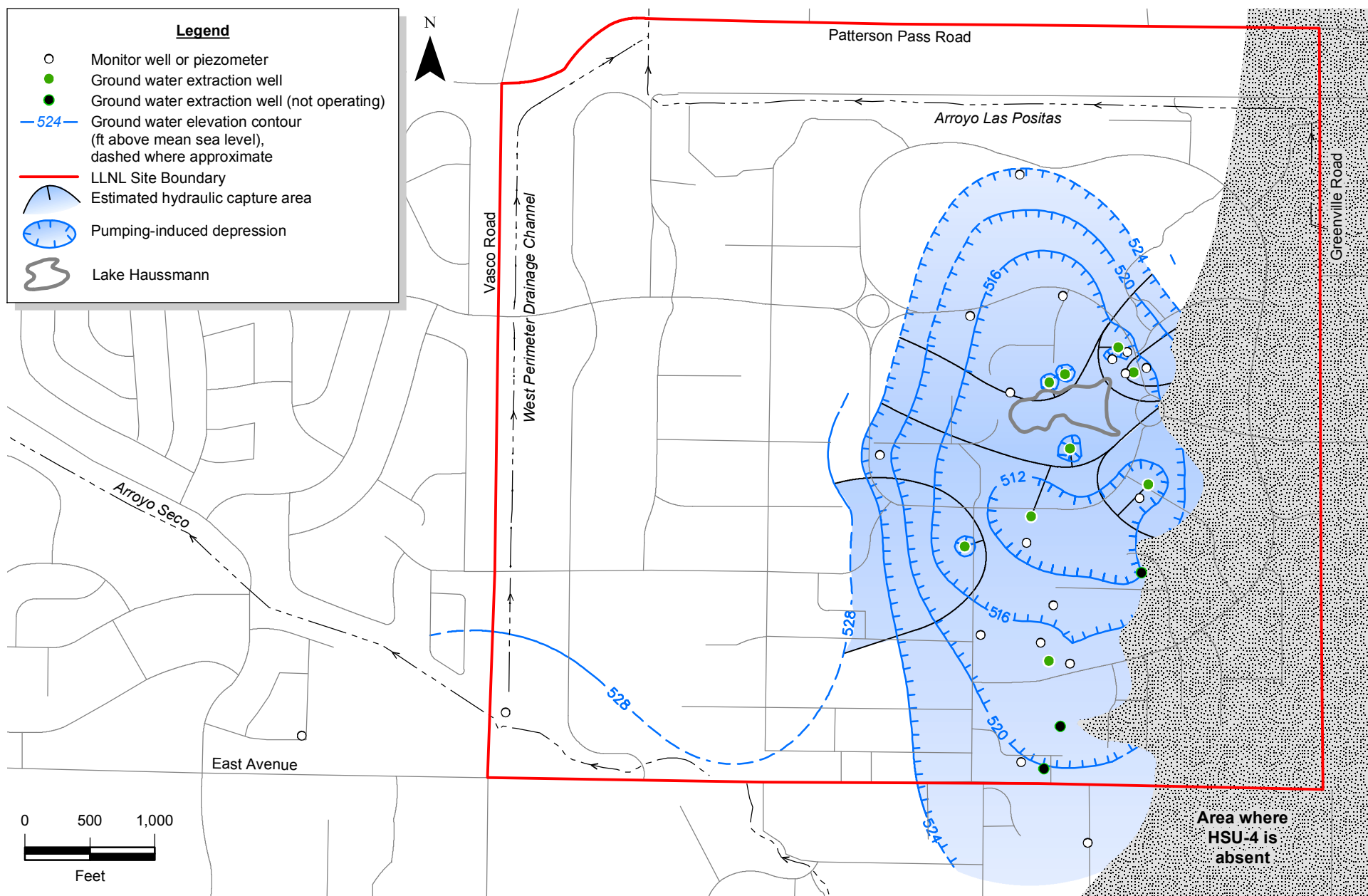


Figure 6. Ground water elevation contour map based on 31 wells completed within HSU-4 showing estimated hydraulic capture areas, LLNL and vicinity, second quarter 2013.

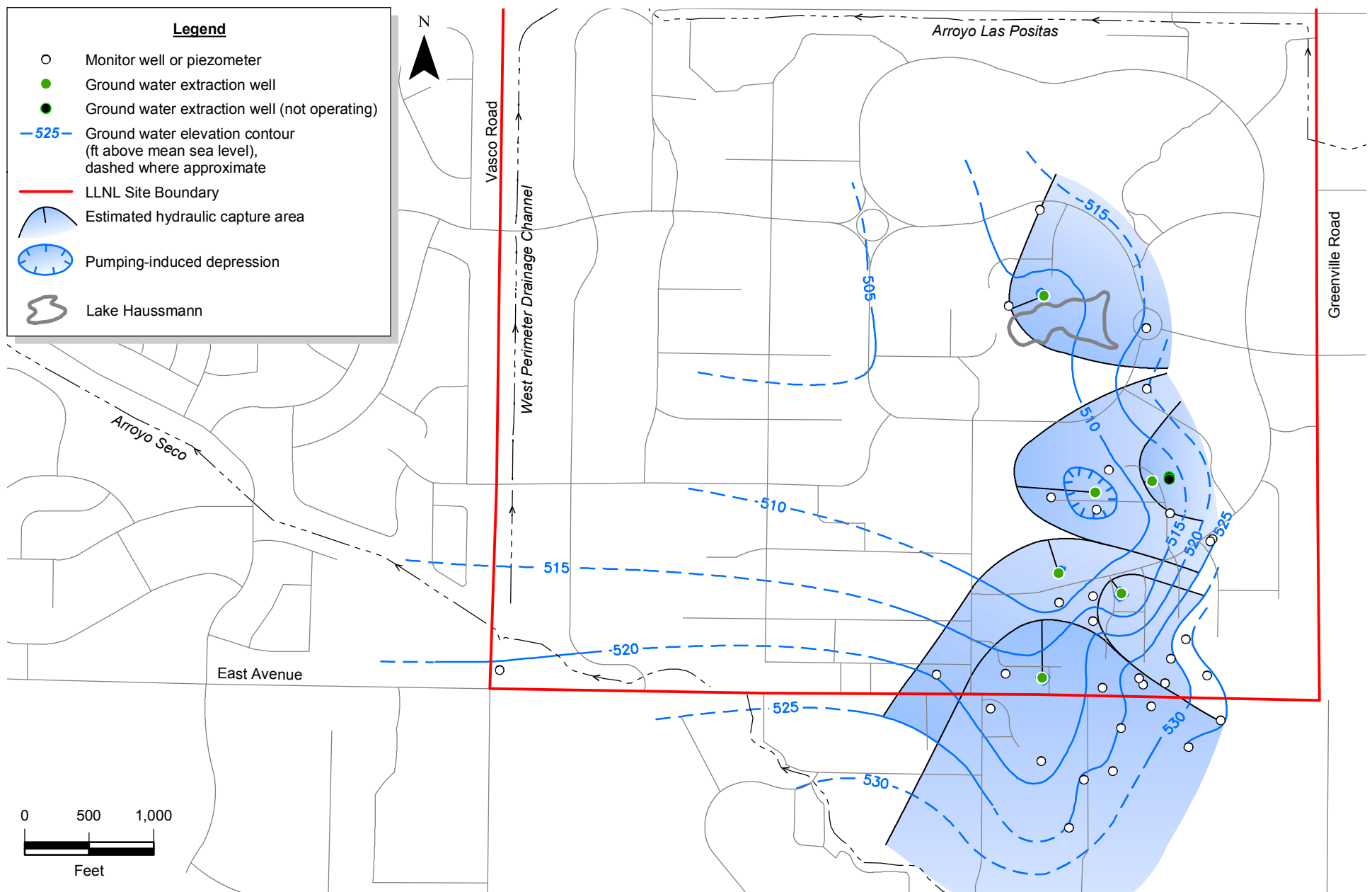


Figure 7. Ground water elevation contour map based on 41 wells completed within HSU-5 showing estimated hydraulic capture areas, LLNL and vicinity, second quarter 2013.